

GARDENS OF THE ROMAN EMPIRE



In *Gardens of the Roman Empire*, the pioneering archaeologist Wilhelmina F. Jashemski set out to examine the role of ancient Roman gardens in daily life throughout the empire. This study offers the first in-depth examination of the archaeological, literary, and artistic evidence for gardens across the entire Roman Empire, from Britain to Arabia. Through well-illustrated essays by leading scholars in the field, various types of gardens are examined, from how Romans actually created their gardens to the experience of gardens as revealed in literature and art. Demonstrating the central role and value of gardens in Roman civilization, Jashemski and a distinguished, international team of contributors have created a landmark reference work that will serve as the foundation for future scholarship on this topic.

Wilhelmina F. Jashemski (1910–2007) was the preeminent pioneer of garden archaeology. As Professor of Ancient History at the University of Maryland, she conducted over twenty-five years of fieldwork on the gardens buried by the eruption of Mt. Vesuvius, as well as gardens at Hadrian's Villa at Tivoli and at Thuburbo Maius, Tunisia. Author of numerous books and articles, notably *The Gardens of Pompeii* (2 vols.; 1979 and 1992) and *The Natural History of Pompeii* (2002), she received the Gold Medal in Archaeology from the Archaeological Institute of America.

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GARDENS OF THE ROMAN EMPIRE

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In Memoriam
Wilhelmina F. Jashemski
and
Stanley Jashemski

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and Amina-Aïcha Malek

AT THE TIME OF her death on December 24, 2007, Wilhelmina Feemster Jashemski was working on her essays and editing those of other contributors. She had not yet had the opportunity to assemble her acknowledgments, so this preface has been written from our collective memory of her often-stated gratitude for those who made the *Gardens of the Roman Empire* possible. Due to the scope of the publication project, here we thank those who contributed to Volume 1, the essays. Further acknowledgments are provided at the start of the catalog of Volume 2.

Three contributors to the *Gardens of the Roman Empire* served as co-editors, working with Prof. Jashemski and deciding on the book's content and format as it evolved: Drs. Kathryn L. Gleason, Kim J. Hartswick, and Amina-Aïcha Malek. In 2001, Gleason and Malek met with Wilhelmina F. Jashemski and Michel Conan to establish the framework and contributors for Volume 1. Over the ensuing years, Prof. Jashemski carefully read every essay submitted and worked with each author on the content, sharing with them examples from the ever-growing catalog of known gardens of Volume 2. As Fellow in Garden Archaeology at Dumbarton Oaks and long afterwards, Dr. Malek worked closely with her on the essays. In 2002, Wilhelmina F. Jashemski asked Kim J. Hartswick, then at George Washington University, to closely edit the essays. Kathryn L. Gleason, who had joined the project

in 1988, assisted with funding and logistics for Volume 1 during these years. Victoria I directed the production and layout of the rich corpus of illustrative material and prepared the perspective drawings and models seen in these essays. The team usually met twice each year with Prof. Jashemski in her garden study.

Upon Prof. Jashemski's death on the morning of Christmas Eve, 2007, Dr. Henry Ferry assumed responsibility for the project as her Executor. A retired Professor of Church History, he had participated on many of the Jashemskis' projects over the years. The annual meeting of the team had been planned for the last week in December, and so Gleason and Hartswick met in Silver Spring with Clopper Almon, Emeritus Professor of Economics at the University of Maryland, who assisted Wilhelmina with many logistical aspects of her work. From the annotated drafts and computer files in her study, they assembled a working manuscript for Volume 1 that is the basis for this volume. Cambridge University Press appointed Dr. Gleason as Executive Editor of the overall publication project of *Gardens of the Roman Empire* and she has worked closely with Dr. Ferry in this capacity. The team met in 2008 with Beatrice Rehl, now Publisher, Religious Studies, Archaeology, and Art History for Cambridge University Press, in March and organized a work session in Ithaca, NY in the summer. They continued to meet annually. Dr. Hartswick continued to take primary responsibility for the editing of Volume 1 and Drs. Malek and Gleason for Volume 2; however, they have all worked intensively on both volumes in the collaborative fashion they had long established with Wilhelmina to edit, update, and shape the book.

The editors have been ably assisted by copy-editors and editorial assistants. Michele Palmer has been the Project Manager, maintaining the computer files and archives, as well as editing, and preparing illustrations. Jacqueline Clinton provided editorial assistance on behalf of Cambridge University Press. Lisa Kahn and Alexandra Creola also helped with the essays and bibliography. Clopper Almon provided the initial translation for Eric Morvillez's chapter, as well as offering kind assistance to Prof. Jashemski in her final years to enable her to continue her work. Students of Prof. Gleason's ancient gardens seminar at Cornell University worked on the plans and illustrations of the book, as did Pamela Brown, Kristine Flahive, Kim Wilczak, and Maureen Bolton. We are grateful to them all.

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Beatrice Rehl has our debt of gratitude once again. She had overseen for Cambridge University Press the editing of Jashemski's *The Natural History of Pompeii* in 2002 and immediately understood what Wilhelmina F. Jashemski and Frederick Meyer had intended for that publication. *Gardens of the Roman Empire* has presented very different challenges, but she again quickly envisioned what we hoped to achieve. We are all grateful for her wise counsel, patience, and perseverance.

We are pleased to acknowledge institutions and individuals who supported this project over the many years of its development. The Samuel H. Kress Foundation provided a generous grant that supported a 1995 conference at the University of Pennsylvania Museum and additional assistance afterwards. The project received support from Cornell University's Department of Landscape Architecture, College of Agriculture and Life Sciences, and the Hirsch Fund of the Cornell Institute for Archaeology and Material Studies; the Laboratoire "Archéologie et philologie d'Orient et d'Occident" UMR 8546 CNRS-ENS the program "Investissement d'avenir" du laboratoire d'excellence TransferS de l'ENS – Collège de France/université Paris Sciences & Lettres (ANR-10-IDEX-0001-02 PSL*& ANR-10-LABX-0099)", M. Espagne Director of the laboratoire d'excellence TransferS, S. Verger, Director of d'AOrOc; and the CUNY Center for Graduate Studies. The Macaulay Family generously provided support for editing and research costs.

Many scholars read the chapters of this volume during the years of preparation. Prof. Jashemski would have certainly wished to recognize her long-time friend and collaborator, the late Dr. Frederick

Meyers, who provided many hours of insightful discussion with all of us during the evolution of this project, assisting with the conference program at the University of Pennsylvania, and with the many aspects of botanical and scientific knowledge in her chapters. Massimo Ricciardi and Karl Heinz Knörzer carefully reviewed botanical identifications. Professor Eberhard Grüger advised her on palynology. George Watson was also helpful in ensuring the scientific accuracy of her chapters and illustrations. John Foss, who provided soil studies of both Jashemski and Gleason's gardens, has contributed greatly to the studies described in this project with advice and photography. Wilhelmina's long-time collaborator and dear friend, the architect Eugenia Salsa Prina Ricotti, shared her knowledge of gardens throughout Italy and Libya. They discussed these sites over her marvelous architectural plans and reconstructions, among the earliest computer renderings, created in the early 1980s (they may be seen in Volume 2). Finally, she spoke often and warmly of Stefano De Caro, who generously shared his knowledge of sites and resources in Italy and facilitated Wilhelmina's access to them.

Well into her nineties, Wilhelmina F. Jashemski sat daily at her computer to edit the manuscripts and to communicate with her authors internationally via email. George Watson, Ellsworth Johnson, and Clopper Almon supported her use of technology. In her last years when she could no longer work at her desk, Marge Koebka, Loetta Vann, and others stepped in to help with word processing, assisted by her caregiver, Kathrine Ngwiri. Colleagues and friends, Lindley and Loetta (Lolly) Vann, assisted Professor Jashemski over the years with whatever was needed to

enable her to continue to pursue her scholarship, including hosting contributors at their home. These friends enabled her in all ways to continue to work on this project and to pursue her scholarship in convivial company.

No acknowledgment would be complete without mention of the enduring legacy of Stanley Jashemski. The Jashemskis' many years of travel around Europe and the Mediterranean to record ancient Roman gardens formed the foundation for this project. On her excavations, his scientific insights guided the work. Perhaps most significantly, his plans and photographs, used to illustrate many of the gardens and paintings of this volume, created a record of much that is now lost. After her death, their niece Sara (Sally) Gladden and Henry Ferry provided additional images seen in this volume. We spent many sessions at the Ferry home working with the Jashemskis' papers, plans, and images. These are now in the archives of the University of Maryland, where they are being scanned and made accessible to scholars and students. We are grateful to the archivist, Anne S. Turkos, for her assistance in the final stages of this volume.

A project of this extent and duration called upon the support and patience of family and friends in innumerable

ways. We thank our own families, and wish to make mention of Wilhelmina F. Jashemski's extended family. Her sister Elizabeth Gladden and her children, Sally, Ruth, Kathryn, and Jim (to whom *The Letters from Pompeii* were originally addressed), often visited her in Maryland, as did her brother, William Feemster, and his wife, Corrine. Their daughters, Holly and Heidi, shared experiences in Pompeii as did the Gladden nieces. Gary Feemster, Wilhelmina's nephew, and his wife, Tommi, also encouraged her with their visits to her home.

The research and production for this book took place from 1954 to 2016, a period in which a whole field of study came into being. The finished work reflects the contributions of the many people we acknowledge here, and of many more than even Wilhelmina Jashemski herself could possibly name. All of those whose efforts appear in these volumes had her warmest appreciation. We dedicate this book to Wilhelmina and Stanley Jashemski and to the memory of the following members of this project:

Eugenia Salza Prina Ricotti (1922–2015)

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INTRODUCTION

Wilhelmina F. Jashemski, Kathryn L. Gleason,
Kim J. Hartswick, and Amina-Aïcha Malek

It remains to turn from plants to the cultivation of gardens, a subject recommended both by its own intrinsic nature and by the fact that antiquity gave its highest admirations to the garden of the Hesperides and of the kings Adonis and Alcinous, and also to hanging gardens, whether those constructed by Semiramis or by Syrus King of Assyria, about whose work we will speak in another volume. The kings of Rome indeed cultivated their gardens with their own hands; in fact it was from his garden that even Tarquin the Proud sent that cruel and bloodthirsty message to his son. In our Laws of the Twelve Tables the word 'farm' never occurs – the word 'garden' is always used in that sense, while a garden is designated by 'family estate'. Consequently, even a certain sense of sanctity is attached to a garden, and only in a garden and in the Forum do we see statues of Satyrs dedicated as a charm against the sorcery of the envious, although Plautus speaks of gardens as being under the guardianship of Venus. Nowadays indeed under the name of gardens people possess the luxury of regular farms and country houses actually within the city. This practice was first introduced at Athens by that connoisseur of luxurious ease, Epicurus; down to his day the custom had not existed of having country dwellings in towns ... Indeed the lower classes in the city used to give their eyes a daily view of country scenes by means of imitation gardens in their windows, before the time when atrocious burglaries in countless numbers compelled them to bar out all the view with their shutters.

PLINY, HN 19.19.49–51, 59 (TRANS. RACKHAM 1971)

In the spring of 2001, Amina-Aïcha Malek, then a Fellow at Dumbarton Oaks, spent the day working with Wilhelmina Jashemski in the garden room of her home in Silver Spring, Maryland. On this occasion, she asked Prof. Jashemski if she had ever published a definition of *garden*, and the latter was surprised by the question, as if it were quite evident: she “defined ‘garden’ as did Pliny the Elder.”

Her answer reveals that Wilhelmina Jashemski was primarily a scholar of texts who turned to archaeology in the absence of evidence on gardens from ancient authors. It would not have occurred to her to conduct archaeology as a course of investigation independent of the texts. Even the most scientific of information had, in her view, the potential to illuminate their reading.

Finding that classical archaeologists rarely excavated gardens, she was compelled to develop archaeological techniques that could lend evidence for her study. Working closely with her husband, Stanley Jashemski, a physicist who brought a scientific perspective to their collaboration, she focused on careful documentation of her archaeological discoveries. She sought scientific means of identifying plant, animal, and insect remains in gardens, examined cultivation practices through local ethnography, and then studied ancient texts for accurate parallels. Her twenty-eight years of excavation and study produced impressive evidence for gardens of many types, which have been abundantly cited by scholars of classical archaeology and literature.¹

Her primary interest in studying gardens was, as she writes below, the study of daily life, a subject that is deeply enriched by archaeology but that cannot be fully

understood without texts and art.² Her plan for *Gardens of the Roman Empire* was governed by this strong perspective, and as editors, we have respected her approach even where we have updated the contents. This book is not exactly the manuscript left upon her death in 2007, as the contributors have updated their contributions to reflect the changes in knowledge. However, her overall vision for the book, established in the 1950s and planned in detail in the 1980s, has not been replaced by our own.³ We simply continued working as we had been doing with her since 1988.

The following introduction begins with Wilhelmina Jashemski’s history of the *Gardens of the Roman Empire* project, taking us from the initial concept, as a single authored work, to the complex collaboration that is reflected in the volumes of this publication. As co-editors, we complete this narrative and lay out the organization of both volumes of the book before proceeding to the essays of Volume 1.

HISTORY OF THE PROJECT

Wilhelmina F. Jashemski

The *Gardens of the Roman Empire* has been many years in the making.⁴ I well remember when it first began. In 1950 I had sent my first book, *The Origins and History of the Proconsular and Proprietorium Imperium to 27 BC*, to the press. Sometime later, my husband and I were sitting in our garden, having concluded our evening meal, and I was thinking out loud about what my next research project would be. Stanley, looking around our garden, said: “You love gardens, gardens were important to the ancient Romans, so



Figure 0.1 Wilhelmina and Stanley Jashemski in their garden in Silver Spring, Maryland.

why not write your next book on Roman gardens?" (Figure 0.1). This suggestion sounded like far too much fun to be a subject of serious research, but the idea was intriguing.

Investigation showed that very little had been written about Roman gardens, with the exception of Pierre Grimal's fine book, *Les jardins romains* (originally published in 1943). But it dealt primarily with the large *horti* in and about Rome, with no mention of gardens in the provinces. I began searching the ancient Roman writers for every mention of Roman gardens. Although it was obvious that the Romans were very fond of their gardens, descriptions of an actual garden are very few. Cicero in his *Letters* commissions Atticus to search for Greek sculptures

for his gardens (*Att.* 1.1.5; 3.2; 4.3; 5.7; 6.2; 7.8.2; 9.2; 10.3; 11.3). In letters to his brother Quintus (*QFr.* 3.1.1–6; 3.7.7), he gives interesting details about work being done in his brother's gardens. But the only detailed descriptions of actual gardens are those of the Laurentine and Tuscan villas of Pliny the Younger, preserved in his *Letters* (*Ep.* 2.17; 5.6).

Hoping to find more evidence, I turned to archaeology and began to systematically devour the excavation reports of Roman sites, both in Italy and in the provinces, wherever houses or public buildings that might have had gardens had been excavated. To my chagrin, I found that the excavators regarded gardens as just so much wasted space, completely ignoring areas that, it was obvious to me from

the architectural context, would have been planted. It was clearly going to be necessary to examine each site, so I planned extensive travel, beginning with those in the eastern Mediterranean. Our first trip to Europe took place in 1955. At that time I intended to make the gardens destroyed by Vesuvius only a chapter in my book *Gardens of the Roman Empire*. I mistakenly believed that all the evidence about the Vesuvian gardens had been published and that the one-day trip to this area in 1955 would suffice!

In 1957 we made a second trip to Pompeii, and I had the privilege of working with the Russian Pompeian specialist, Dr. Tatiana Warscher, of the American Academy in Rome, with whom Professor Bradford Welles, Chairman of the Classics Department at Yale, had put me in contact.⁵ It was Dr. Warscher who introduced me to the vast evidence for gardens in the Pompeii area, still to be examined (Figure 0.2). By the end of this trip I knew that my first book would be on the gardens of the Vesuvian sites.⁶ Nonetheless, I was determined to continue my visits to other sites, both in Italy and in the provinces, in order to understand better the extent to which the Vesuvian gardens resembled, or differed from, the gardens elsewhere in the empire. At this time, I thought that my book would be based on the evidence I was gathering during my travels, as I systematically studied each garden that had been excavated. At Pompeii, I read the excavation reports for those houses that had been published and carefully noted the architectural context of each garden, also any pools or fountains and any garden paintings, sculpture, or garden furniture still displayed in the garden, in the Pompeii Antiquarium, or in the National Museum in Naples.



Figure 0.2 Wilhelmina Jashemski and Tatiana Warscher at Pompeii.

In 1961, I was invited to excavate gardens at Pompeii, and this led to many intensive summers of work there and later at Boscoreale and Oplontis (modern Torre Annunziata).⁷ Our studies revealed the extent to which the garden was related to so many aspects of Roman life. Restaurants, hotels, schools, and various types of shops had gardens. There were gardens in many public buildings, such as temples, baths, theaters, and palaestras; even tombs included gardens. When I first began my examination of the gardens of Pompeii I believed that it would be essentially a study of the peristyle garden. This turned out not to be so, after our excavations showed that the famous Foro Boario was in fact a large commercial

vineyard. Eventually we were to discover other vineyards, large vegetable gardens, orchards, and a commercial flower garden within the walls of Pompeii. Our work in the gardens of Campania encouraged us to consider aspects of Roman gardens other than the architectural setting that was all that had been noticed before we commenced our study. In most cases, not even the findspots of garden sculpture or furnishings had been noted. In addition to analyzing the casts of tree or plant roots made from the cavities left by their decayed matter, we collected evidence of plant material, wood, seeds, fruit, pollen, bones, the role of water, soil contours, planting beds, etc. in our new excavations – evidence that had been lost forever in earlier excavations.

Three scientists have been particularly instrumental in forming the multi-disciplinary nature of the study of ancient Roman gardens. Professor emeritus John Foss, an agronomist from the University of Tennessee, accompanied our excavations of the Campanian gardens in these years.⁸ Dr. Frederick Meyer, retired Research Botanist in charge of the Herbarium at the United States National Arboretum in Washington, DC, was closely associated with my work until his death.⁹ He identified the carbonized fruits, nuts, vegetables, and seeds found in our excavations, as well as the plant material portrayed in the wall paintings. Francis Hüber, Curator of Paleobotany at the Smithsonian Institution, identified pieces of deteriorated wood, scraps of charcoal, and ancient pollen.

Even as our work in Campania introduced us to increasingly diverse ways of understanding the complexities of the Roman garden and its relation to Roman

life, we continued our interest in seeking out gardens outside Campania. Each year, either on our way to Pompeii or after finishing our work there, we continued to visit other sites both in Italy and in the provinces, looking for evidence.¹⁰

In 1979, I was invited to plan the seventh History of Landscape Architecture Colloquium at Dumbarton Oaks on Ancient Roman Gardens. Quite appropriately this took place the year of the 1900th anniversary of the eruption of Vesuvius in AD 79, for it was this tragedy that, by overwhelming Pompeii, Herculaneum, and the many villas in the surrounding area, preserved our most complete evidence about early Roman gardens.¹¹ In preparing a list of speakers, I feared that it would be difficult to find enough scholars who had excavated a Roman garden to make up a two-day program. I was greatly gratified with the enthusiastic response that I received when I began to invite participants, even though several said that they knew little about the gardens in the sites that they had excavated. But I assured them that they could talk about the architectural context of the gardens. When we finally assembled, it was with a sense of excitement that we were embarking on something new. It was the first time, as far as we could discover, that a group of people had ever gathered together to discuss the gardens of the ancient Romans and their role in ancient Roman life, in both Italy and the provinces. There have been countless symposia and conferences on almost every aspect of antiquity – on Roman law, government, religion, architecture, wall painting, mosaics, pottery, the provinces, the *limes*, shipping, numismatics, to name some of them – but on gardens, no. It seems strange to anyone

who has worked on Roman gardens that the subject should have been so long neglected, for the garden was intimately related to almost every aspect of Roman culture: art, religion, architecture, economics, public and private life.

Animated and fruitful exchanges took place in the discussion periods after each paper, during the coffee hours, and at mealtimes. During the closing remarks at the end of the final session, the various speakers enthusiastically summarized the new insights and new directions for excavation and research that had resulted from the symposium. There was a realization that the complex Roman civilization could not be fully understood until we inquired more deeply into the character and significance of the garden in Roman life. A new field of specialization in Roman studies was coming into being.¹²

After the success of this symposium, Elisabeth MacDougall asked me to plan a second garden symposium at Dumbarton Oaks in 1984. By this time, I had less difficulty in planning the program devoted to recent excavation and research in Roman villa gardens.¹³ As the interest in Roman gardens grew, more scholars began to carefully excavate the gardens at their sites and to contact me with their results.

As a result of the publication of these conferences at Dumbarton Oaks and *The Gardens of Pompeii* in 1979, the character of my book *Gardens of the Roman Empire* began to take an entirely different form. The book would now gather all the known gardens into one work, accompanied by a selection of essays by scholars now working on Roman garden evidence. The first phase of the work was a catalog of gardens. I invited those scholars who had excavated or made a special study of a garden

to write the entries about the gardens they knew well.¹⁴ I eventually invited scholars who lived or had done substantial work in a given province to be area editors (named below). They were to describe the gardens they had excavated, and, knowing the research being done in their country or the country in which they worked, they could invite any other scholars to discuss gardens that they might have excavated.

Many of the area editors expressed the desire and need to meet and discuss the catalog project. Kathryn Gleason, area editor for the eastern Mediterranean provinces, and I explored various possibilities. In 1995, the University of Pennsylvania Museum of Archaeology and Anthropology, the departments of Landscape Architecture and the History of Art of the same university, together with generous help from the Samuel H. Kress Foundation, made it possible for us to bring together the area editors, as well as various scientists who had worked on Roman gardens, for a two-day conference, "The Gardens of the Roman Empire," at the University of Pennsylvania Museum in Philadelphia (Figure 0.3).¹⁵ The talks, open to the public, presented overviews of most of the provinces of the catalog. We began with Rome and moved out to the provinces. Kathryn Gleason spoke on Rome's public gardens, Christine Haeuber on the *horti* of Rome, M. Luisa Polichetti and I presented the extensive new evidence for gardens on the Italian peninsula. Eugenia Salza Prina Ricotta showed stunning gardens, brought to life in her fine computer reconstructions, in Libya. Michèle Blanchard-Lemée spoke of the gardens in houses at Cuicul, Algeria, while her student Amina-Aïcha Malek discussed the portrayal of nature in the African *domus*. Jean Marie



Figure 0.3 Gardens of the Roman Empire conference at the University of Pennsylvania Museum, 1995.

Pallier reviewed the evidence for Gaul, and Maureen Carroll surveyed a surprising number of villa gardens from northern European provinces. Ehud Netzer presented his excavations and research on the Herodian and Hasmonean palaces in Judaea and Arabia. The discussion was rounded out with more synthetic discussions of Hellenistic precedents offered by Inge Nielsen, early patronage by Ann Kuttner, and water display by Norman Neuerburg. Gardens require interdisciplinary work among many fields, and some of the scientists contributing to *The Natural History of Pompeii* expanded upon their observations to address Roman gardens generally.¹⁶ Garden soils were described by agronomist John Foss; carbonized plants in the Vesuvius region were discussed by Frederick Meyer, and other issues of paleobotany by Karl-Heinz Knörzer. Antero Tammisto animated our image of the garden with his discussion on birds.

Collectively, the papers presented over the two days of the conference showed

that there was more evidence for gardens across the empire than any of us had fully imagined. The public presentations were followed by working sessions of the area editors in consultation with the scientists, shaping the content of the book. We disbanded and continued to work on building the catalog. I gave careful thought to the nature of the essays we would need in order to cover the extensive new evidence of Roman life in gardens around the empire.

On his arrival as Landscape Studies Director at Dumbarton Oaks, Michel Conan was very enthusiastic and supportive of ancient Roman gardens and garden archaeology in general. Scholars often write to me asking how to excavate the gardens in their site, finding it difficult to imagine what might be left after two millennia. To address this need, in 1999, Dumbarton Oaks asked me to serve as a Senior Advisor on a Garden Archaeology Project, an inter-departmental project shared by the three programs of studies

at Dumbarton Oaks, with three main goals: the publication of a sourcebook on garden archaeology, the establishment of a network of garden archaeologists, and the updating of the Dumbarton Oaks research collection library in garden archaeology. To facilitate this project, as well as *Gardens of the Roman Empire*, Dumbarton Oaks generously created a Garden Fellowship. Amina-Aïcha Malek, by then a young postdoctoral scholar, who was contributing entries on African provinces, was appointed to this position. She shaped and edited the *Sourcebook* and brought this important project to completion.¹⁷

Dumbarton Oaks invited the authors of the essays for Volume 1 to a two-day symposium on February 14–15, 2003 so that they might share ideas and interpretations. This symposium was hosted by Michel Conan and the Director of Byzantine studies, Dr. Alice Mary Talbot. Fellows of the two divisions and a few other specialists and students were invited as guests. After a warm welcome by the directors, I opened the symposium by examining what the Romans understood by the word garden (*hortus*), and noted other Latin words for special kinds of gardens. I mentioned the various kinds of gardens to be found in the cities of the empire, so well illustrated by Pompeii because of the way in which the city was preserved by the tragic eruption of Vesuvius in AD 79. These themes were filled out over the next two days. Eric Morvillez and Margarita Orfila discussed gardens in the *domus* of Gaul and Lusitania, followed by a discussion of the *domus* for that chapter as a whole. Kim J. Hartswick then expanded the discussion of the residential garden to cover villa and imperial gardens, as a separate chapter. Non-residential types of gardens

followed, with Maureen Carroll presenting the evidence around the empire for temple gardens and sacred groves, and, in a separate presentation, for gardens in schools and *gymnasia*. Janet DeLaine presented the evidence for plantings in palaestras and the notable lack of evidence for gardens in bath complexes. Kathryn Gleason reviewed the gardens in porticoes to examine the ways in which we might think about public gardens. John Bodel provided an erudite overview of the tomb garden. I reviewed the evidence, still primarily from the Vesuvius region, for produce gardens for domestic and commercial cultivation: kitchen gardens, vineyards, orchards, and commercial flower production. The experience of moving through and looking at gardens, as revealed by archaeology, was recreated for us vividly in discussions of the role of paintings in the gardens by Bettina Bergmann, and of mosaics in their setting by Amina-Aïcha Malek. Kim J. Hartswick examined the role of garden sculpture. My presentation of garden plants and planting techniques offered a transition from these talks on the aesthetic experience of the garden to the papers that followed on the evidence of construction that made such beauty in the garden possible. Gemma Jansen revealed how water was brought from the source through the plumbing pipes and fixtures of gardens and fountains to its ultimate display. I wrapped up the essay papers with a discussion of life in the garden and the significance of the garden in Roman culture, seen through the literary evidence and the archaeological evidence. Michel Conan gracefully concluded the session and led us to a lovely reception.

When we opened the outside door to leave the building we were greeted by a

blinding snowstorm. I was particularly fortunate, as Dr. Kevin Conrad had a four-wheel-drive vehicle waiting, so Victoria I, the artistic and figure editor of our work, and I made it to my home without difficulty, but our colleagues were stranded at a hotel near Dumbarton Oaks. Animated discussion of the symposium's findings continued for two days before the airports reopened. We were all in good company, and it was a memorable conclusion to a fine conference.

I have been asked in recounting this history of the Roman Gardens Project not to forget the many working sessions that took place in the garden room of my home in Silver Spring. The chapters of this book were developed with many of its authors and editors as we sat together in this lovely room with its cathedral ceiling, comfortable furniture, books on Roman and other ancient gardens, the texts of the ancient authors, and exotic plants (gifts from my plant collector botanist colleague and friend, Frederick Meyer). Windows on three sides looked out onto my garden, beautiful if the evergreens were covered with tufts of snow or when dogwoods and azaleas or other flowering plants were in bloom. My garden room made a perfect place to work on Roman gardens; some sessions were only with one author, some with several or many, some sessions a single day, others lasting for several days or even weeks. And, of course, there were the customary breaks for tea and sandwiches.

POSTSCRIPT

Wilhelmina Jashemski remained an active scholar into her late nineties, working each day in the garden room with

her aides and colleagues. She published *A Pompeiian Herbal* in 1999, essays for numerous edited works on garden history, and completed the text for Stanley Jashemski's fine photographs of plants, *Wildflowers amid the Ruins: Pompeii and Greece*.¹⁸ She worked with Clopper Almon, Professor Emeritus of Economics at the University of Maryland, on her memoirs.¹⁹ To the end of her life on Christmas Eve 2007, she continued to manage *Gardens of the Roman Empire* and had the manuscript at her side to the last, anticipating the annual meeting of the editors the following week.

Jashemski's working method, on all of her books, involved a continuous exchange with scholars around the world on the latest discoveries and theories about Roman gardens, revising and updating her own writing and editing to reflect the most current scholarship. She applied this method to *Gardens of the Roman Empire*. Following the two conferences, she organized meetings at her house twice a year with editorial team Amina-Aicha Malek, Kathryn L. Gleason, Kim J. Hartswick, and Victoria I to collectively discuss the book's development. Her two primary models for the project were *Gardens of Pompeii* vols. I and II, and the *Princeton Encyclopedia of Archaeological Sites*, and these works, together with the *Barrington Atlas*, remained her touchstones as the project increased in complexity. She was enthusiastic about the move to a digital CD for Volume 2, as it allowed a less restricted word count and color images.

Following her death, the editorial team continued to meet to decide the editing and final form of the book, in a manner faithful to the way in which we had worked with her over the years. This process was overseen by

Henry Ferry, Wilhelmina's executor, and he and Beatrice Rehl appointed Kathryn Gleason to be Executive Editor. However, in practice, the editorial team continued in their usual roles: Kathryn Gleason and Amina-Aïcha Malek managed the overall project and the catalog of known garden sites, assisted by Michele Palmer, Catherine Kearns, and Clopper Almon. Kim J. Hartswick took responsibility for overseeing the editing of the essays, as he had been working with Wilhelmina on this task. Victoria I carried out Wilhelmina's wishes for the layout and graphic appearance of the work. As the acknowledgments indicate, we were supported by many people dedicated to seeing Wilhelmina Jashemski's life work completed as she had envisioned it.

The final major development in the creation of *Gardens of the Roman Empire* came in 2008, when Cambridge University Press moved to the production of digital books. *Gardens of the Roman Empire* was transformed in response, retaining its original two-volume format, but requiring extensive new scanning efforts and editing. Volume 1 is a traditional print volume, also available in digital pdf form. Its outline has been slightly restructured to best represent the flow of the chapters in their final form. Volume 2 keeps the graphic format and content for entries that Wilhelmina Jashemski originally designed, but as a whole it is more experimental and entirely digital. Designed to be updated frequently, it brings the full corpus of known garden sites to scholarly attention for the first time as a free, open access reference work. The entries of the catalog include excavated gardens as well as sites where

gardens have not been excavated but which can be plausibly identified based on architectural context, garden architecture, and soils. We anticipate that the inclusion of these unexcavated sites will encourage students to take on the study of these promising locations and will encourage archaeologists to better evaluate the possibility of gardens in their regions. Working with Cambridge University Press, we expect to regularly update the catalog and the editors actively seek new entries via the Society for Garden Archaeology.

USING GARDENS OF THE ROMAN EMPIRE

Kathryn L. Gleason, Kim J. Hartswick,
and Amina-Aïcha Malek

Volume 1: Essays

The essays are largely those presented in the 2003 conference, but there have been changes over the years. Naturally, the subject areas of the volume are wide in scope and, while Wilhelmina asked each author to provide an overview, the authors each had to find a particular focus, and several authors updated their essays over time. The current outline reflects the content of the chapters in their final form, with sections on the main types of gardens, the experience of gardens as revealed by literature and art, making the garden, and a conclusion by the editors.²⁰

For Wilhelmina Jashemski, the Romans' love of their gardens is founded in the *domus*, a subject reviewed by Eric Morvillez in Chapter 1. Morvillez brings a perspective to gardens in the *domus* of

the provinces that is not currently synthesized in the literature. The emergence of the ideology of the Roman villa garden is explored by Kim J. Hartswick in Chapter 2 and reflects the extensive scholarship on the subject since Jashemski's conference and volume, *Ancient Roman Villa Gardens*, in 1986. In Chapter 3, Elizabeth Macaulay-Lewis builds on Hartswick's chapter by considering archaeological examples of villa gardens seen around the empire. Wilhelmina Jashemski encountered the relationship between gardens of display and luxury and economically productive gardens in her work at Boscoreale, Oplontis (Villas A and B), and even within Pompeii itself. She focuses in Chapter 4 on produce gardens. Moving to public gardens, Maureen Carroll surveys temple gardens and sacred groves in Chapter 5, presenting exciting new evidence from around the empire. In Chapter 6, Janet DeLaine explores the presence (and absence) of gardens in baths and palaestra. In Chapter 7, Maureen Carroll discusses gardens in *gymnasia* and schools. Finally, in Chapter 8, John Bodel investigates tomb gardens.

Part II, "The Experience of Gardens as Revealed by Literature and Art," begins with Anthony Littlewood's review of Greek (Chapter 9), and K. Sara Myers's Latin (Chapter 10) literary evidence for Roman gardens. In Chapter 11, Bettina Bergmann discusses representations of gardens from miniature scenes to inhabitable *trompe l'oeil* painted rooms and other subjects found on garden walls, which usually appear in combination with the more ubiquitous painted gardens. In Chapter 12, Amina-Aïcha Malek investigates floor mosaics in the architectural settings of *domus* in the African

provinces, where the theme of nature and gardens is highly developed. Sculpture in gardens, particularly in the *horti* of Rome, is examined by Kim J. Hartswick in Chapter 13.

The third section of this volume, "Making the Garden," begins with a discussion of the processes of design and construction, particularly of large gardens, by Kathryn Gleason and Michele Palmer (Chapter 14). Gemma Jansen traces water supply to the garden in Chapter 15. Wilhelmina Jashemski then explores gardening techniques and cultivation practices in Chapter 16. In the next chapter (17), she presents her research on plants around the empire. This is one of the few chapters substantially altered after her death. Archaeobotany developed rapidly in the last years of her work on this chapter, and her manuscript was filled with lists of plants from new archaeological excavations that she had not yet integrated into the discussion of the text. Kathryn Gleason and Michael Herchenbach, in the spirit of the ongoing conversation about these developments, have added a summary of current archaeobotanical knowledge that provides a context for gardens in the various provinces.

Volume 1 concludes with a short essay by the editors (Chapter 18). Based on a discussion of definitions by Wilhelmina Jashemski, the editors reflect on the contribution of this volume, together with recent scholarship, to our understanding of the ancient terms. We then go on to discuss the contributions of garden archaeology to the study of Roman garden culture, urging the preservation and careful reconstruction and preservation of Roman gardens and landscape architecture for future scholarship.

Volume 2: Catalog

Volume 2, at the time of Wilhelmina Jashemski's death, was planned to be a CD, then a DVD. Shortly after, Cambridge University Press moved to digital books and publications, and Beatrice Rehl proposed that Volume 2 become a stand-alone digital reference.²¹ This move has enabled us to present each entry with the full range of color images and plans provided to us by the authors of the entries. Most catalog entries are prefaced by a brief description of the site.

Beginning in 1988, the soliciting and editing of the catalog entries were carried out by the various area editors. Each area editor had discretion in assembling the entries. Some are entirely compiled and written by the area editor, while in other cases the editor collected and edited entries from the archaeologists in charge. The names of the authors reporting on each site are noted at the end of the entry and a collected list is provided in the catalog. The area editors are (in the order laid out in the volume):

EUROPA

- Italy: Wilhelmina Jashemski, with Kim Hartswick, Eugenia Salsa Prina Ricotti, and M. Luisa Polichetti
- Sicily: Roger Wilson
- Hispania: Margareta Orfila, J. M. Alvarez Martinez, Trinidad Nogales Basarrate, Clopper Almon, Jorge de Alarcão
- Gallia: Eric Morvillez
- Germania: Maureen Carroll
- Britannia: Maureen Carroll
- Achaëa: Maureen Carroll

ASIA

- Asia: Maureen Carroll, Kathryn Gleason, Catherine Kearns
- Bithynia, Galatia, Pontus, Lycanonia, Cappadocia, Cilicia, Armenia and Colchis, Iberia, Albania: Catherine Kearns
- Assyria and Mesopotamia: Catherine Kearns
- Syria: Christina Condoleon
- Judaea (Palestina): Kathryn Gleason
- Arabia Petraea: Leigh Ann Bedal

AFRICA

- Aegyptus: Roger Bagnall
- Libya: Eugenia Salza Prina Ricotti
- African provinces: Amina-Aïcha Malek, Michele Blanchard, Wilhelmina Jashemski

In the catalog, the gardens are arranged geographically, first by continent (Europe, Asia, Africa), then by provinces within each continent. Since the boundaries of the provinces, and sometimes their names, changed in the course of the Empire, for convenience we have used the provinces at the maximum extent of the empire under Trajan. In a few cases the province was not created until after Trajan. An introduction to each province describes the area's history with the Romans, noting any issues relating to the organization of the catalog, and gives an overview of the evidence and state of archaeological scholarship for gardens in that region.

Within each province, the sites are arranged in alphabetical order under their Roman name, the modern name given in parentheses; the modern country in

which the site is located is also given. Italy is divided into the administrative regions created by Augustus, I–IX. Gardens in the larger cities are organized by region. In the case of Rome, this is by the ancient administrative districts, while in Ostia, Pompeii, and other large cities this is by the districts created by the archaeologists. Maps are provided to guide the reader.

The gardens discussed in each province and in the various divisions of Italy were initially numbered, but the complexity of the catalog, and the difficulty of neatly cataloging complex garden sites as if they were objects, ultimately led us to abandoning the catalog numbering system in favor of an encyclopedic format, facilitated by digital search tools. Each entry is, except in rare cases, accompanied by plans, usually provided by the excavators, as well as

photographs and reconstructions. A bibliography is given for each garden. We have the ability to update this catalog on a regular basis. The first edition will reflect the unwieldy nature of gardens as objects of study, and we solicit active feedback for updates that will be immediately posted.

Thus it is hoped that these volumes will be a basis upon which future scholars can build. Garden archaeology is emerging from its infancy. It is our hope that this work will encourage archaeologists, who have not been concerned with the possible gardens in their sites, to examine them carefully, calling on the help of the various specialists indicated.

As Wilhelmina Jashemski often said, it is our hope that “in creating this record, many a garden site that might have been lost forever will be rescued.”

Part I

THE MAIN TYPES OF GARDENS

Chapter 1

THE GARDEN IN THE *DOMUS*

Eric Morvillez

LITERATURE ON GARDENS in the Roman *domus* may be considerable, but it is also dispersed and incomplete. The early studies by Wilhelmina Jashemski on the gardens of Pompeii and nearby Vesuvian towns remain fundamental, but we now have more evidence from the beginning of the Republic down to the fifth century AD, not only from Italy but also from the whole of the empire. A large number of examples and a great diversity of types have been recorded; however, the quality of the information can be uneven, the publications are sometimes hard to find, the remains of the houses are frequently incomplete or only partially uncovered, and the space occupied by gardens is often still not methodically excavated, though much progress has been made on the last point. And, even with the best of methods, it is still exceptional to know what and where plants were in a garden. Moreover, we may be sure that the houses known to us are but a small fraction of those that existed.

There is a natural enticement to concentrate on certain spectacular, well-studied and published houses while neglecting other, more modest or less well-known homes. We shall try to resist this temptation by giving proper attention to older excavations, the published reports of which, however, must sometimes be read with skepticism. Yet, some of these early excavators were, in fact, more interested in gardens and the ambience of houses than they have been given credit for. We will draw evidence not only from Vesuvian and other Italian

sites but also from urban centers in Gaul, Africa, the Iberian Peninsula, and Asia. We shall also try to sketch as complete a picture as possible of the characteristic traits of Roman private houses and seek to determine their fundamental nature. Above all, we hope to demonstrate the directions of research in the two hundred years of studies on Roman houses since the pioneering works of François Mazois in the early nineteenth century.¹ The documentation that has now emerged from these studies is truly innovative, opening perspectives for future research, which will require systematic study of examples from across the empire and through the centuries.²

Our study, based primarily on gardens published within the last decade as well as other pertinent examples known earlier from Italy and the towns of Campania, will begin with how the garden came to be in the house. We will then discuss the placement of the garden, its principal components, and its relation to the rest of the house, for the garden can be understood only as a space in constant dialogue with the reception rooms and other spaces around it. Furthermore, our view of the garden cannot be limited to its layout but must also include topographic features, climatic conditions, and urban constraints. We will show how the garden, particularly in a city, was a space much desired but also threatened by urban growth.

At Pompeii and in nearby towns, we possess a marvelous snapshot of the state of gardens at the time of the eruption of Vesuvius in AD 79, some of which preserve their original layouts from as early as the Samnite period (fourth century to 80 BC), others being virtually contemporary with their destruction. For the rest

of Italy and in the provinces, in the great majority of cases, the situation is quite different: we have houses that served a long time and disappeared slowly, undergoing phases of remodeling in the process. It is necessary to excavate with great attention to understand clearly the chronological phases of a site, and even then ancient destruction often obscures stratigraphic analysis, particularly for gardens, as the houses surveyed here will make clear.

It is often difficult to determine, therefore, the dates for the creation of many gardens; however, when a house was entirely changed from the layout of its immediate predecessor the new garden spaces are typically datable to the beginning of the new house. Because many houses fell progressively into decrepitude at the end of antiquity, it is not always easy to know when precisely certain gardens lost their functions.³ Moreover, it is not always possible to identify particular spaces as gardens, although large pleasure gardens, unlike little spaces without porticoes and small courtyards, often can be identified with certainty. Yet, these secondary outdoor spaces are just as important as the larger pleasure gardens in understanding the place of nature in houses.

BRINGING THE GARDEN INTO THE HOUSE

The Necessary Garden

As Wilhelmina Jashemski reminds us, the traditional Italic house had behind it a space, the *heredium*, which was more vegetable patch or orchard than pleasure garden. We see this arrangement in the oldest houses of Pompeii, such as the House

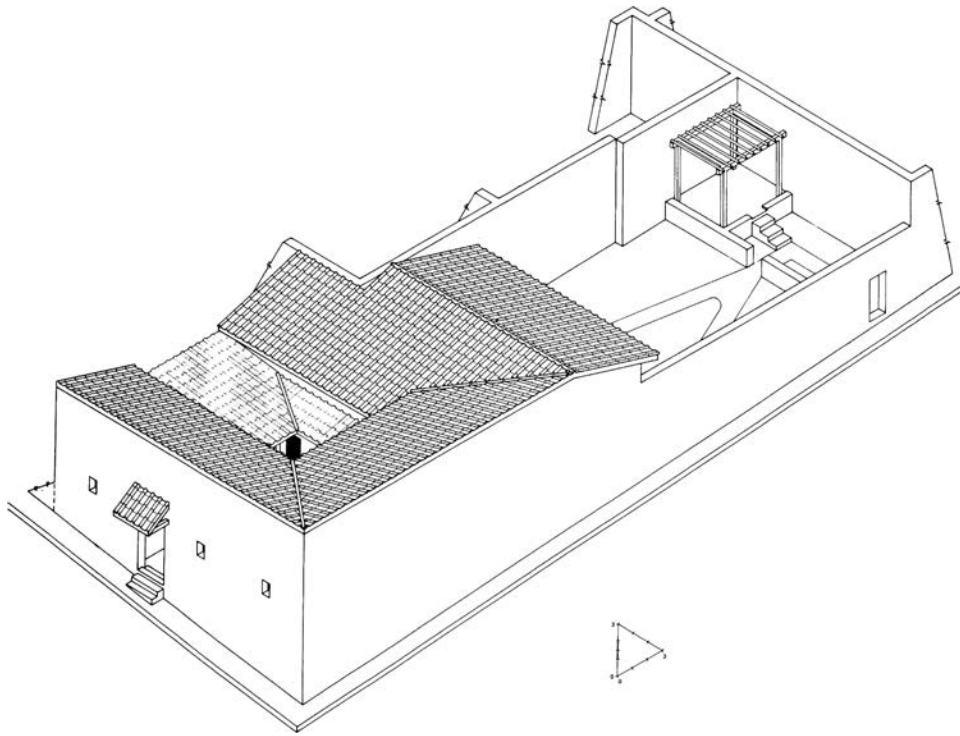


Figure 1.1 House of the Skeleton, Cosa, axonometric reconstruction, after Bruno and Scott 1993, 144, fig. 36.

of the Surgeon (vi.1.10) or the House of Sallust (vi.2.3–5). These houses of the Samnite period have, in some cases, kept their gardens, as in the House of Pansa (vi.6.1/12), often cited as a model, where the size of the *domus* was doubled by a garden at the back of the house, or the House of the Silver Wedding (v.2.1), where an irregularly shaped garden lies beside the *atrium-tablinum-peristyle* complex.

To these examples from Pompeii, we can add other Italian houses brought to light by relatively recent excavations, such as the House of the Skeleton at Cosa (Figure 1.1), dating to the first century BC. Behind the façade of this house was an *atrium* and beyond it a portico parallel to the street in front. Farther back, the garden sloped gently upward toward the rear of the lot. There was evidence suggesting a pergola in the back left corner of this area. Under it would have been a small space for open-air banquets – a frequent

component, as we shall see, in urban gardens. One should note that other houses uncovered from this quarter have courtyards with cisterns but no gardens, making that of the House of the Skeleton particularly noteworthy.⁴

Originally the garden, whether connected to the house or separated from it, was seen from an economic and familial point of view.⁵ It was not meant only for pleasure or for luxurious living, but for daily life – a vital element in the economy of the family. But, as Pierre Grimal has pointed out, it was also dear to the soul of the Roman, for it represented the countryside, to which he was deeply attached.⁶

The Peristyle Reinvented: the Viridiarium

The addition of the peristyle to the *atrium*-centered house, considered a borrowing

from Hellenic models, is all too easily viewed as the artificial combination of two architectural forms: the Italic *atrium* and the Greek peristyle. But, as Jashemski points out, it is necessary to see the matter differently. The peristyle or courtyard of the Greek house, whether Classical or Hellenistic, with its floor of pounded earth or paved with stones or covered with mosaics in the most luxurious cases, was first and foremost the nerve center of the house; it connected the rooms and gave them light but was not a garden. It was the Romans who, beginning in the second century BC, in the context of the development of *luxuria*, created the garden peristyle onto which opened large reception rooms and *triclinia* for banquets. They also put the apartments for the private life of the family around the peristyle rather than around the *atrium*. Thus, the planted courtyard became even more a connector of spaces, which were now for leisure and especially for aesthetic enjoyment. In introducing the *viridarium* or pleasure garden into a courtyard surrounded by porticoes, the Romans completely changed the sense and function of this space from its Greek architectural prototype.

Combining focal points, sound, and aroma, the peristyle garden required much care and attention from its owner, who affirmed there his cultural and sometimes religious preferences with the inclusion of pools and fountains, water jets, and statues, inscriptions, altars, sculpted balustrades, summer *triclinia*, walkways, and planted beds. Through these elements, he created a special intimate space in which he expressed his own identity and asserted his personality. In the choice of the decor of the floors, walls, and ceilings of the surrounding porticoes, as in that of

its garden furnishings, the garden characterized in a very special way its proprietor. From the simplest informal gardens, as Jashemski called them, shaded by a few trees, to the formal garden, laid out geometrically and embellished with architecture, there is great variation. The garden thus is our best access into the Roman soul, not, to be sure, in its official, repetitive aspect that we see from public edifices, but in its most intimate side, that of the *otium* of the *privatus*.

For Vitruvius, the peristyle was one of the attributes of the most aristocratic Roman house of the *nobilitas*: "For the most prominent citizens, those who should carry out their duties to the citizenry by holding honorific titles and magistracies, vestibules should be constructed that are lofty and lordly, the *atria* and peristyles at their most spacious, lush gardens and broad walkways refined as properly fits their dignity."⁷ Likewise, Vitruvius emphasizes the importance of the size of the peristyle more than its plantings as a sign of wealth and social standing but he also mentions other important spaces such as *pinacothecae* and private *basilicae*. Of course, "forests" or groves (*silvae*) and outdoor walkways (*laxiores ambulationes*) could also enhance the prestige of property owners, but these are rare within the constraints of an urban environment.

The houses of the Italian elite became the models for other less grand abodes. In the town of Pompeii, from the Samnite period on, under the influence of *luxuria Asiatica* owners rebuilt their former gardens, transforming them into large peristyles. The number of columns could approach that of princely Hellenistic architecture, which they sought to imitate. The House of the

Faun is a good example. Built around 180 BC, it had a double *atrium* and a peristyle of 7×9 columns. In the late second or early first centuries BC a second peristyle, 32 by 35 meters, supported by 43 columns (12×11), was built at the back where an earlier *hortus* had been. As a result, most of the reception rooms, *tablinum*, *triclinia*, and the *exedra* with the famous Alexander Mosaic, all opened via doors or windows to gardens.⁸

In the case of the House of the Labyrinth (VI.11.8–10), the first phase of its Doric portico dates from the late second century, when an earlier *hortus* was increased with the taking over of two neighboring houses. At this time, the main *tablinum*, located in an impressive tetrastyle *atrium*, had a panoramic view of the new garden, an indication of the increased visual role of the peristyle enhancing the central reception area of the *domus*. In the wake of damage to this peristyle, caused by Sulla's troops in 89 BC, it was entirely rebuilt as one of the largest (23.20×26.50 m) then in the city, containing a Corinthian *oecus* and reception rooms decorated with Pompeian Second Style wall paintings (ca. 70 BC).⁹

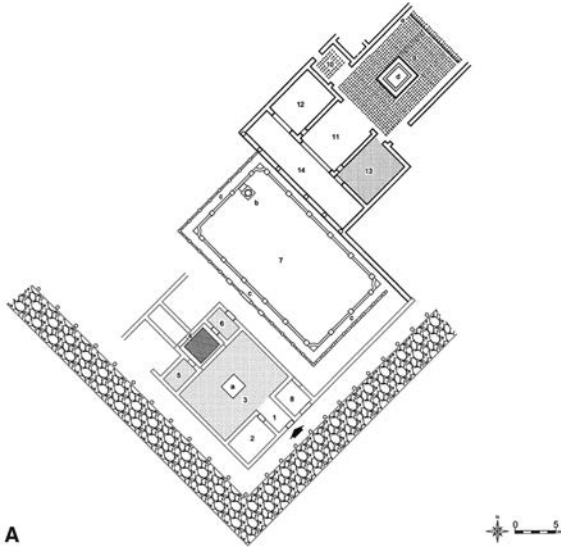
In Italy outside Campania, for example in Emilia-Romagna, beginning in the Augustan period, the peristyle became the characteristic element of the Roman house.¹⁰ Likewise, near the forum at Luni on the eastern tip of Liguria, during the first half of the first century BC, the House of the Frescoes had a U-shaped peristyle with three porticoes of vast proportions – 14×8 supports (Figure 1.2A: Courtyard 7). It was later divided into two elegant gardens, one with planting beds separated by canals, the other ornamented with a *nymphaeum* (Figures 1.2B, 1.2C).¹¹

Ostentatious Gardens of Rome

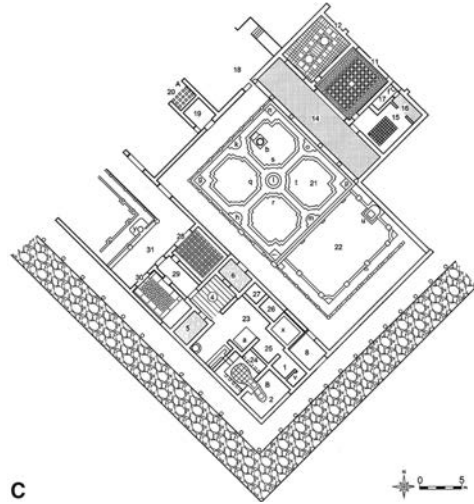
The houses of Rome, particularly on the periphery, must have had gardens not only enclosed in traditional peristyles but also as promenades (*ambulationes*) and even parks and forests (*silvae*) with dimensions and proportions corresponding to some houses described by Vitruvius and others.¹² Gardens in the historic city core, attempting to compete with such spaces, devoted more and more real estate to gardens where trees could be planted.

Seneca the Elder contrasted such luxuries in relation to more humble homes in an incident involving a dispute between neighbors.¹³ Part of a poor man's testimony against his neighbor, who had burned down his house in an argument over a tree, is a tirade against the extravagant houses of the rich, which occupied enormous spaces within the city with their high walls, promenades stretching over vast distances, groves, and fishponds. Rather than, as the rich man argues, the branches of the tree blocking his view and the roots undermining the foundations of his walls, this single tree, to the poor man, was the solitary pleasure he had in evoking forests, which only the rich could afford.¹⁴

Not only does this incident mark the common acrimony between the lifestyles of the rich and poor but also the importance of the integration of trees, from at least the first century BC, into even modest urban houses as a reflection of personal luxury in Rome.¹⁵ For example, the house of the orator L. Licinius Crassus was admired as much for its architectural opulence as for its six large hackberry trees (*celtis australis*).¹⁶ Pliny (17.3–5) reminds us of a dispute between Cn. Domitius Ahenobarbus and Crassus in 92 BC, when both were elected

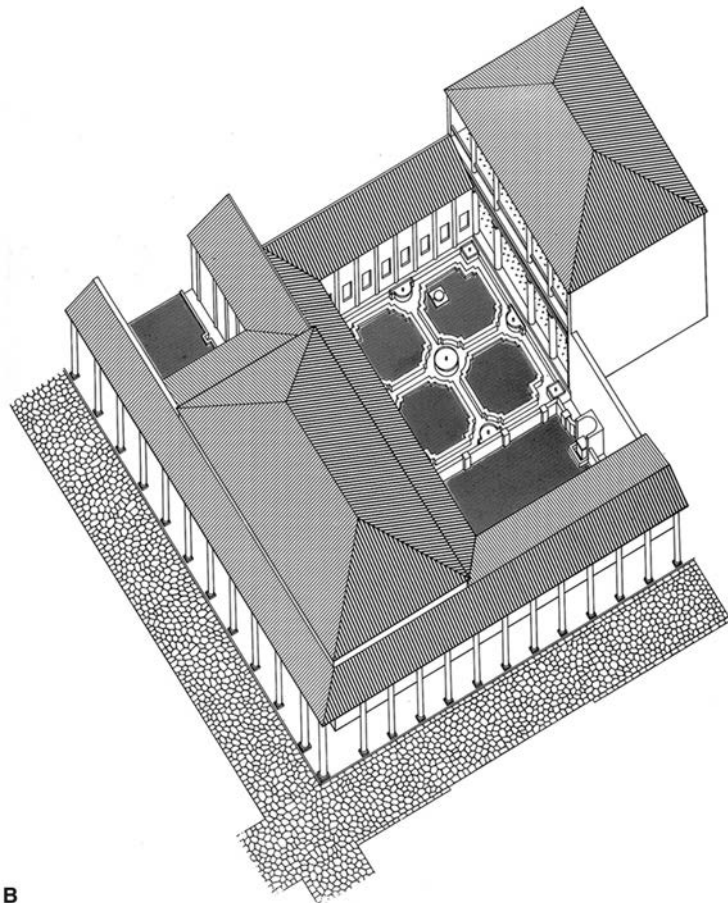


A
Figure 1.2A House of the Frescoes, Luni, plan, after Ghedini and Annibaletto 2012, 245.



C
Figure 1.2C House of the Frescoes, Luni, plan, after Ghedini and Annibaletto 2012, 247.

Figure 1.2B House of the Frescoes, Luni, axonometric reconstruction, after Zaccaria Ruggiu 1983, 4, fig. 1.



B

censors, about the selling price of Crassus' *domus*, whose value was high because of these trees on the property:

Gnaeus Domitius, being a man of hasty temper and moreover inflamed by that particularly sour kind of hatred which springs out of rivalry, gave Crassus a severe rebuke for living on so expensive a scale when holding the office of censor, and repeatedly declared that he would give a million sesterces for his mansion; and Crassus, who always had a ready wit and was good at clever repartees, replied that he accepted the bid, with the reservation of half a dozen trees. Domitius declined to buy the place even for a shilling without the timber. 'Well then,' said Crassus, 'tell me pray, Domitius, am I the one who is setting a bad example and who deserves a mark of censure from the very office which I am myself occupying – I, who live quite unpretentiously in the house that came to me by inheritance, or is it you, who price six trees at a million sesterces?' The trees referred to were nettle-trees, with an exuberance of spreading, shady branches; Caecina Largus, one of the great gentlemen of Rome, in our young days used frequently to point them out in the mansion, of which he was then the owner, and they lasted – as we have already also spoken of the limits of longevity in trees – down to the Emperor Nero's conflagration, thanks to careful tendance still verdant and vigorous, had not the emperor mentioned hastened the death even of trees.¹⁷

The branches of hackberry trees may reach 20 meters and need to be planted at least 10 meters from buildings, so we may imagine the grand scale of Crassus' garden and why these trees were considered so valuable. But apart from their size, their age also clearly impacted their value

because they were living witnesses to multiple generations of owners who nurtured and protected them. In the context of domestic environments trees must also have been reminders of public porticoes, villa parks, or even of holy woods (*nemus*) adjacent to shrines as depicted in contemporary wall paintings.

In the few examples of well-preserved houses in Rome at the end of the first century BC, gardens are identified in front of reception and sitting rooms and covering nearly half of the land occupied by the house.¹⁸ Sometimes, they required substantial earthmoving or adaptation to land, as in a house recently excavated between the *clivus Palatinus* and the *Domus Publica* (Figure 1.3). Built above a basement used as a service area, this two-story house was organized in an L-plan around a *viridarium*, bordered on two sides by porticoes. The planted space had two side-by-side pools near the center and another perhaps surmounted by the façade of a *nymphaeum*. Beyond, at the back of the perspective, was a great pool with alternating half circle and rectangular niches on three sides.¹⁹

Monumental *atria* continued to be built at the end of the Republic, such as that of Scaurus', with columns more than 11 meters high and occupying an area of perhaps 430 square meters, enough space for more than a hundred people.²⁰ We may well ask if peristyles of corresponding proportions were not also built during this period. In fact, from the second quarter to the end of the first century BC the regions of the Forum and the Palatine hill were considerably transformed with the reconstruction of old, outmoded houses that were no longer in keeping with the political and social ambitions of their inhabitants.²¹

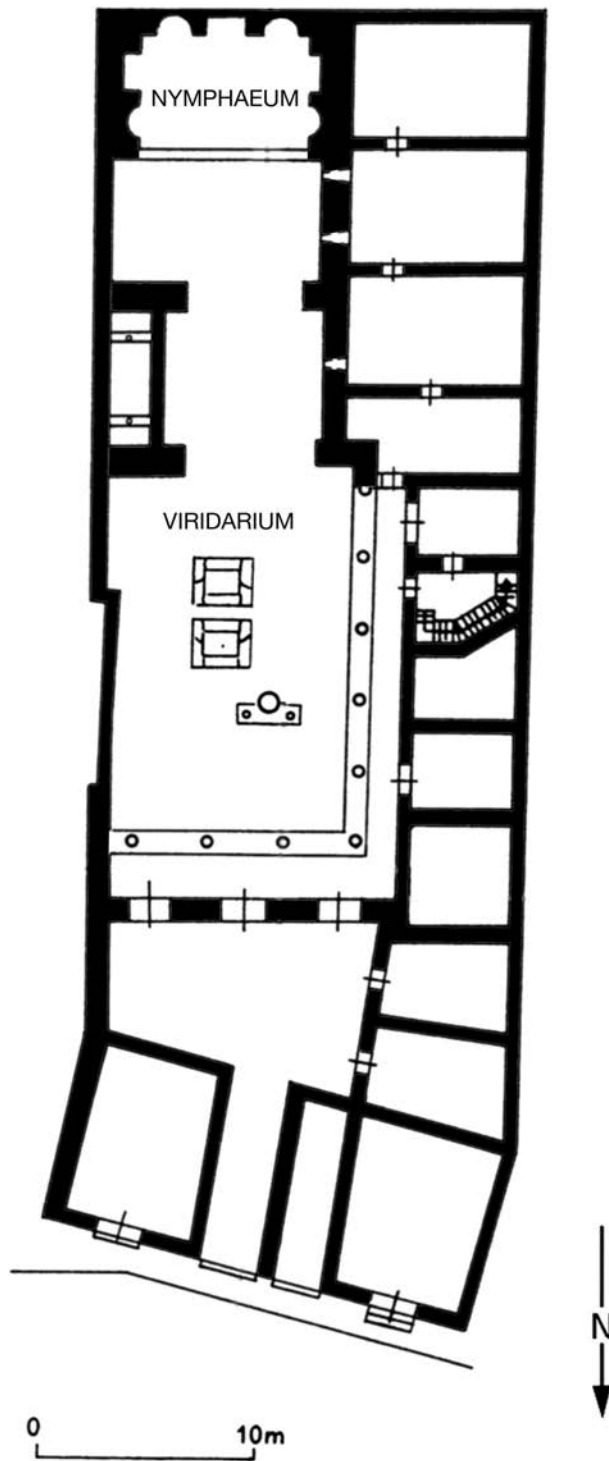


Figure 1.3 Roman *domus* near the *Domus Publica*, plan modified from Gros 2001, 76, fig. 66.

Recent excavations on the Palatine in the Vigna Barberini (Figure 1.4) revealed a *domus*, dated to the Augustan period

(around 30 BC), having been built on a series of terraces. A large rectangular peristyle with marble columns has been identified above a *cryptoporticus*. The colonnade likely opened on one side towards a view of the valley where the Colosseum was constructed more than a century later. In the center on the long sides of the courtyard were two rectangular fishponds, 2 meters wide and 1.5 meters deep, painted blue with a parapet covered with marble, separated by a planted area in the center, confirmed by the discovery of nursery pots. The *opus sectile* floors of the porticoes made of various marbles (*marmor numidicum*, Africano, palombino) hint at the ostentation of the owners on this hill.²²

Gardens, particularly those that were professionally designed and had a history, increased, over time, the value of these properties. However, scarcity of open spaces in urban centers hindered the creation of gardens *ex nihilo*, so that contiguous properties were typically combined to increase the open spaces of one's house. Octavian-Augustus purchased at least ten houses on the Palatine to create a single residence, a precursor to the later Imperial palaces that eventually occupied the entire hill.²³ The less occupied periphery of Rome offered, of course, greater opportunities for open spaces and luxury gardens, but blurred the distinctions between urban *domus* and suburban villa. In fact, Cicero described his *domus* in the city with terms that are typically associated with villas, such as porticoes, *palaestrae*, and *ambulationes*.²⁴ In his moments of studious leisure, Cicero liked to retire to his library near the green of the garden or stroll about in a covered exercise area, spaces that reflect the desire to evoke villa life in the city.²⁵



Figure 1.4 House on the Palatine, Vigna Barberini, axonometric reconstruction (J. M. Gassend in collaboration with F. Villedieu, Villedieu 2001, 35, fig. 13).

Entering into the Garden

According to Vitruvius, the fundamental architectural difference between the *domus* and the *pars urbana* of the villa is the position of the *atrium* and peristyle. In the former the *atrium* is near the entrance and the peristyle is in the back, while in the villa, one first passed through the peristyle to arrive at the *atrium*. The Villa of the Mysteries, just outside the walls of Pompeii, offers a well-known example of this Vitruvian villa arrangement. It

was neither shocking nor incongruous for a Roman, beginning in the Augustan age, on entering a house to find directly after the vestibule, a peristyle with its garden; in the first century, there was even a sense of modernity to this arrangement. In the close quarters of the city a different sequence of rooms was common: a narrow passage from the street, called a *fauces*, followed by an *atrium*, a *tablinum*, and finally a peristyle. This sequence of *atrium-tablinum-peristyle* for the urban house is considered so characteristic that

even when courtyards with porticoes, especially in small houses, are at the front, they are sometimes misidentified as *atria*.

The situation is the same in the provinces where the models of Italy were exported. Eric Delaval, in his study of the evolution of small houses excavated between 1977 and 1987 in the quarter of “Clos du Verbe incarné” at Lugdunum (Lyon), points out that the reliance on the Pompeian house as a model has led to the designation of small open spaces in houses as *atria*, although nothing justifies such an identification. In fact, in a single *insula* at Lugdunum in a quarter established in the Augustan period (between the years 40 and 20 BC) were three contemporary houses with strikingly different ground plans: the House of the Pilasters, with an *atrium* (Tuscan?), a *tablinum*, and a small rectangular garden (either a vegetable or pleasure *hortus*) on one side of the parcel; the House of the Emblema Mosaic, with a tetrastyle *insula*; and the House of the Lararium, with a courtyard containing a central basin. None of these houses possessed a peristyle garden or had a portico.²⁶

As noted by Pierre Gros, limited availability of space in *insulae* may explain the absence of an *atrium* in some urban houses, but it should not be forgotten that the *atrium*, as a formal reception area, was not necessary for most of the population. According to Vitruvius: “men of everyday fortune do not need entrance courts, *tablina*, or *atria* built in grand style, because such men are more apt to discharge their social obligations by going round to others than to have others come to them.”²⁷

Indeed, the disappearance or the transformation of the *atrium* in numerous rich houses in Pompeii after the earthquake of

AD 62 suggests that it had gone out of fashion, perhaps, at least partially, as a result of changing political and social roles. The conversion of some *atria* into more pleasant spaces by the addition of fountains, water jets, or planters, as in the House of Loreius Tiburtinus (II.2.2) or that of Obellius Firmus (IX.14.4/2), to cite but two well-known examples, reveals a substantial change in the conception of domestic spaces and the growing desire to bring nature into the house.²⁸ Furthermore, the introduction in Roman cities of running water for the wealthy, for example in Pompeii, may have rendered the *atrium* superfluous as an architectural necessity in which traditionally an inclined roof (a *compluvium*) collected rainwater in a cistern beneath the floor.

Entry from a vestibule directly into a peristyle courtyard is often a common feature of many Roman houses. At Aquileia, several houses of the first century AD, some of which still kept their basic plans into Late Antiquity, were built around a peristyle: for example, a house of Augustan times (among the earliest at the site) organized around a peristyle of probably 5 × 4 columns discovered under the Early Christian basilica (the Aquileia cathedral);²⁹ the wealthy house of the Rizzi Fund, datable to the first half of the first century with rooms ornamented with floor mosaics, arranged around three sides of a square peristyle (Figure 1.5); and perhaps the house of the Former Cossar Funds, although its plan is not complete enough to be certain.

The entryway opening directly onto the garden may also be explained by a combination of constraints connected with the location of the houses and with the history of the *insulae*. Pompeii offers a variety of

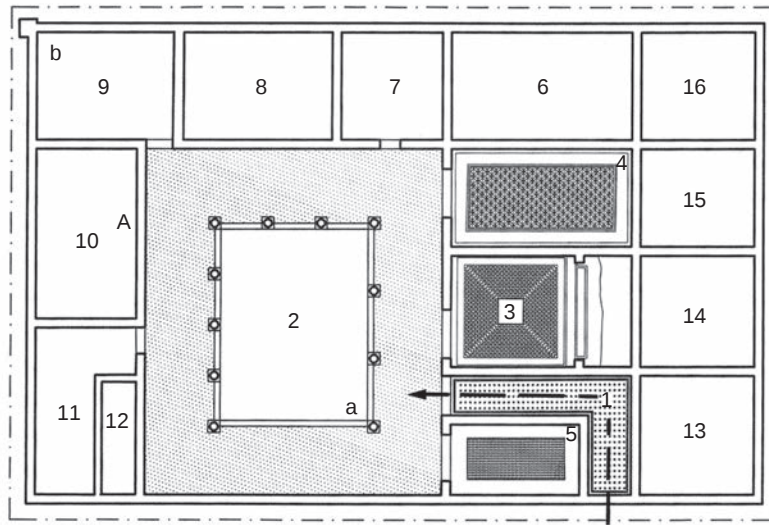


Figure 1.5 House of the Rizzi Fund, Aquileia, plan, after Ghedini and Annabaletto 2012, 76.

situations. The peristyle could, for example, be reached by a simple corridor directly from the street³⁰ (Figure 1.6) or by a long corridor leading to a corner of the peristyle³¹ (Figure 1.7). In house vi.15.23, the door opened directly into the peristyle courtyard, surely the result of space restrictions that suppressed even a small vestibule (Figure 1.8).³²

When the available space was narrow and elongated, a U-shaped plan of a single long portico and two short ones allowed for more open space than four porticoes, as for example in the small Pompeian house i.13.1. The same phenomenon appeared later in the provinces as at Saint-Romain-en-Gal (Figure 1.9A). In the middle of the second century (after AD 138), the House of the Off-Center Pool, having been built mostly on the foundations of a previous commercial building, did not leave enough room for a large vestibule, so instead there was a small rectangular space into which one entered from the street. The visitor was then likely directed

down a long corridor that opened onto the pool and garden, thus protecting the intimacy of the garden from the outside world. In the remodeling of this house in the third quarter of the second century (between 160 and 180), to produce a decidedly more luxurious abode (Phase II, named the House of the Five Mosaics), a larger and more elaborate vestibule was built (Figure 1.9B). The front door, enlarged to 4.8 meters wide, now opened onto a vestibule (1), which led to the east portico of the garden, and had two small, symmetrical rooms (3 and 4), possibly for a doorman. Because of insufficient space only two contiguous porticoes (forming an acute angle) flanked this garden.

Likewise, an L-shaped portico was employed at Pompeii in house i.2.16³³ and in house i.16.2a, where one entered directly into a massive tufa-columned portico on two sides of the garden.³⁴ Similar architectural compromises were made even in more luxurious *domus*, such as that of Pinarius Cerealis, III.4.b,

Figure 1.6 House 1.12.6, Pompeii, plan, modified from Jashemski 1993, 54, plan 15.

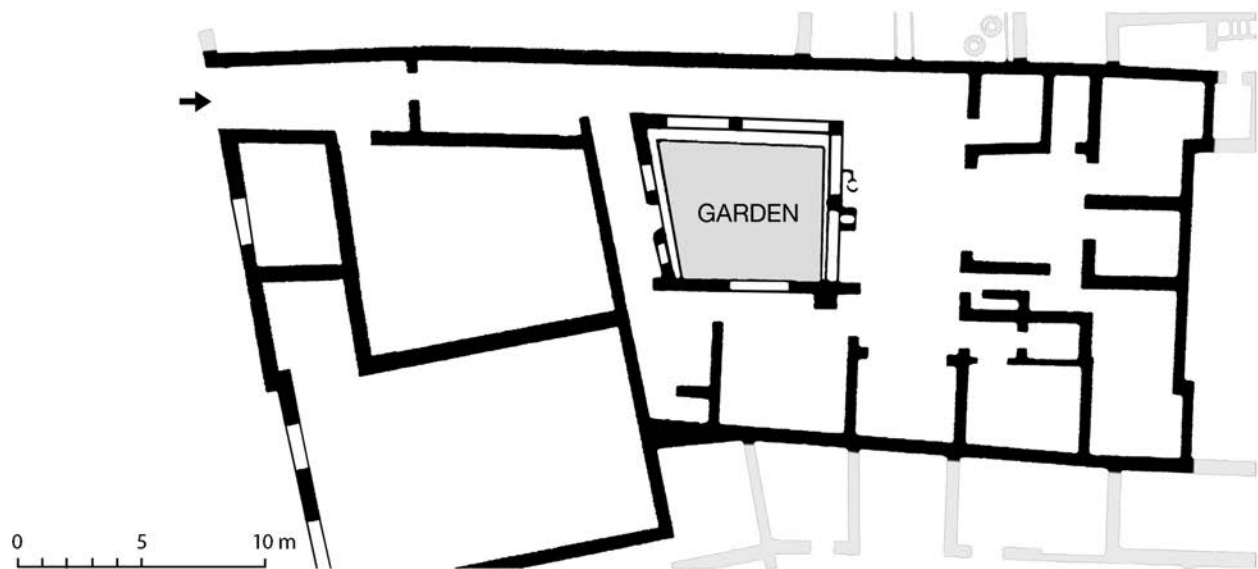
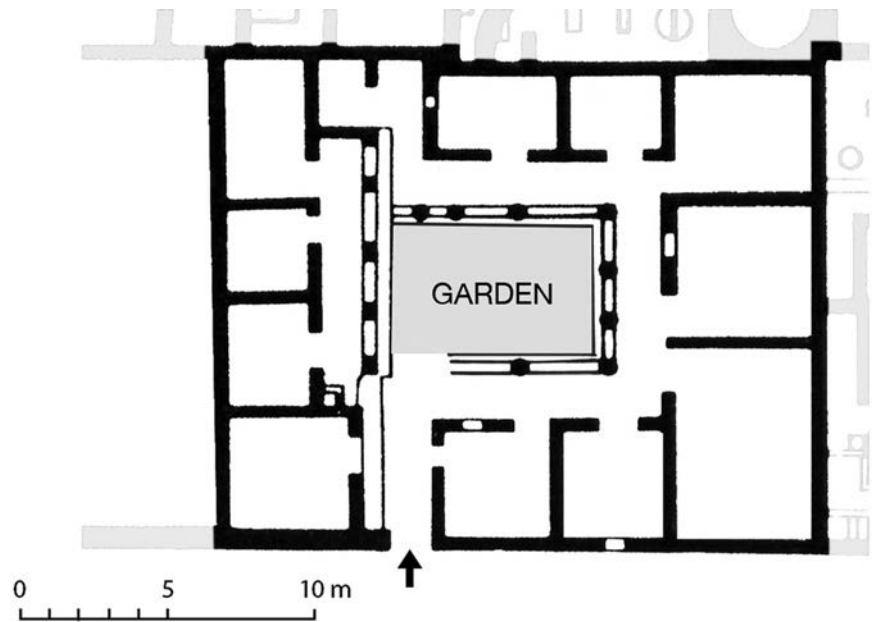


Figure 1.7 House 1.3.8, Pompeii, plan, modified from Jashemski 1993, 26, plan 6.

whose refined and affluent owner may have been a jeweler, where one entered directly into the garden from the end of a wide L-shaped portico (Figure 1.10).³⁵ In the small House of Acceptus and Euhodia, VIII.5.39 (Figure 1.11), one entered directly from the street into a

two-storied portico supported by only two columns, on the right of which was a garden. Separated from the portico by a low wall, this garden, although very small, had a masonry *triclinium* with a fountain jet in the table and a number of fine sculptures.³⁶

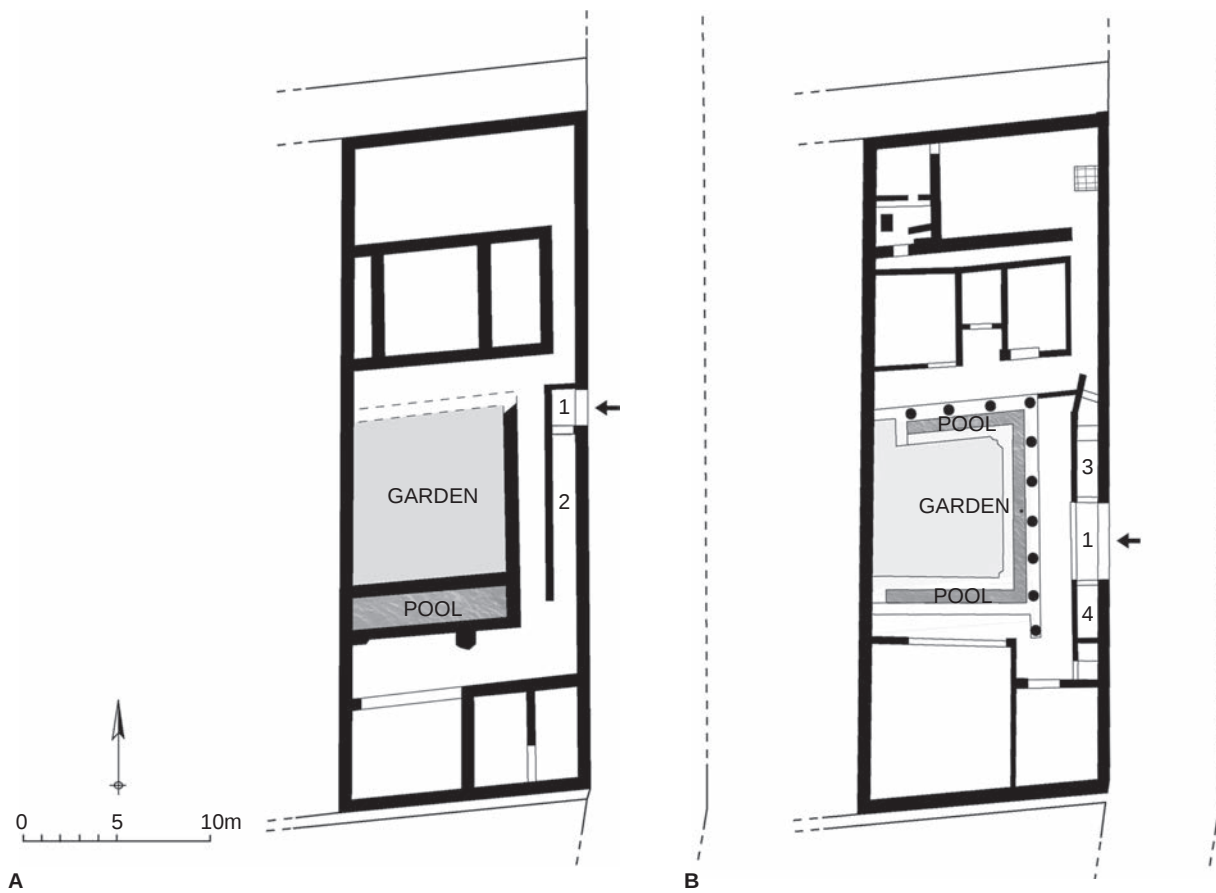
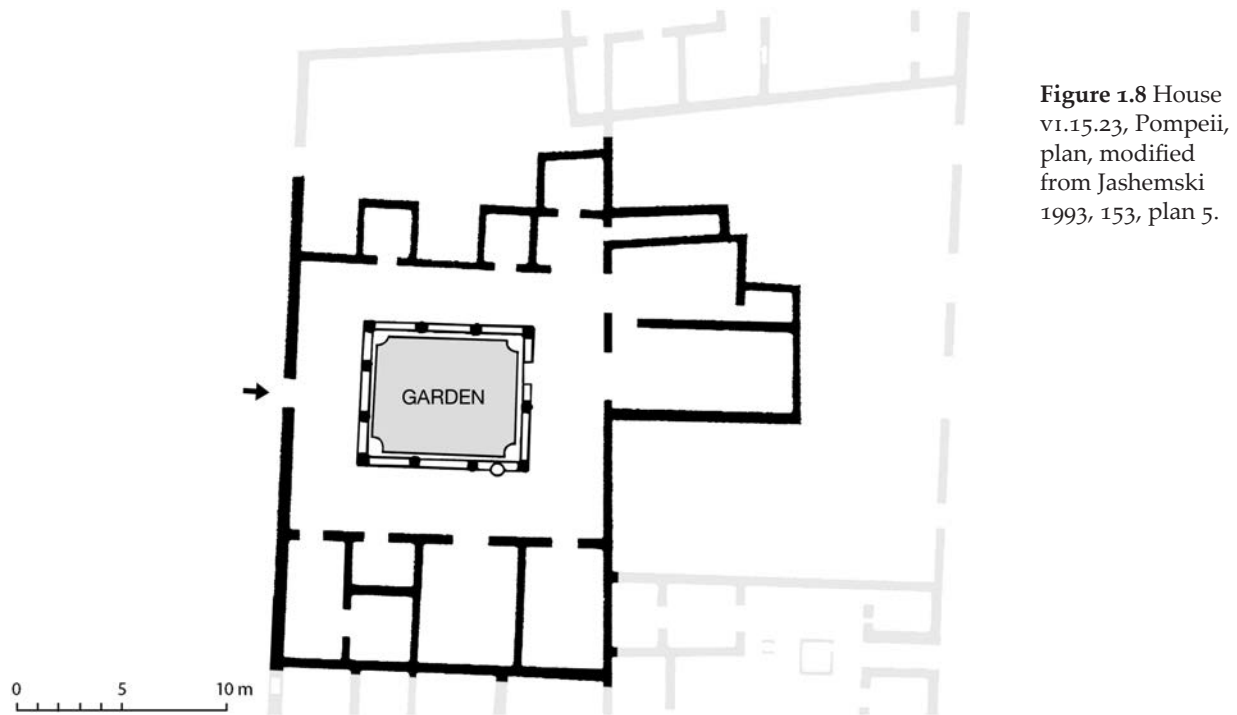


Figure 1.9A House of the Off-Center Pool, Saint-Romain-en-Gal, plan, modified from Gros et al. 1996, vol. 2, p. 385.

Figure 1.9B House of the Off-Center Pool, Saint-Romain-en-Gal, plan, Phase II, modified from Gros et al. 1996, vol. 2, p. 387.

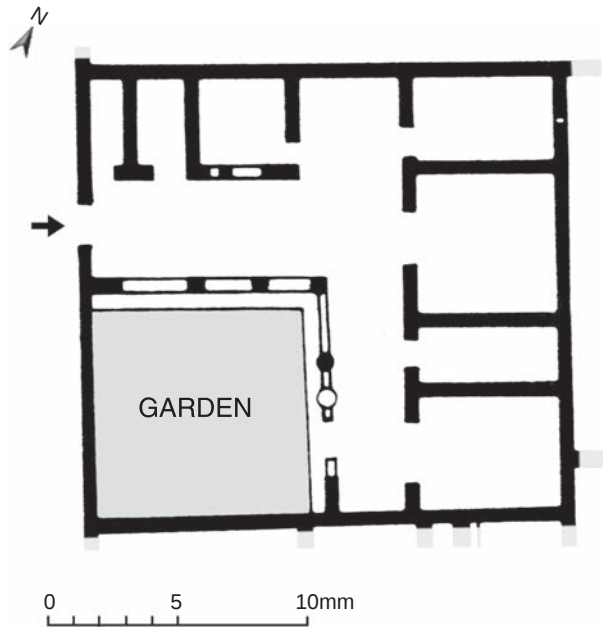


Figure 1.10 House of Pinarius Cerealis, III.4.b, Pompeii, plan modified from Jashemski 1993, 102, plan 33.

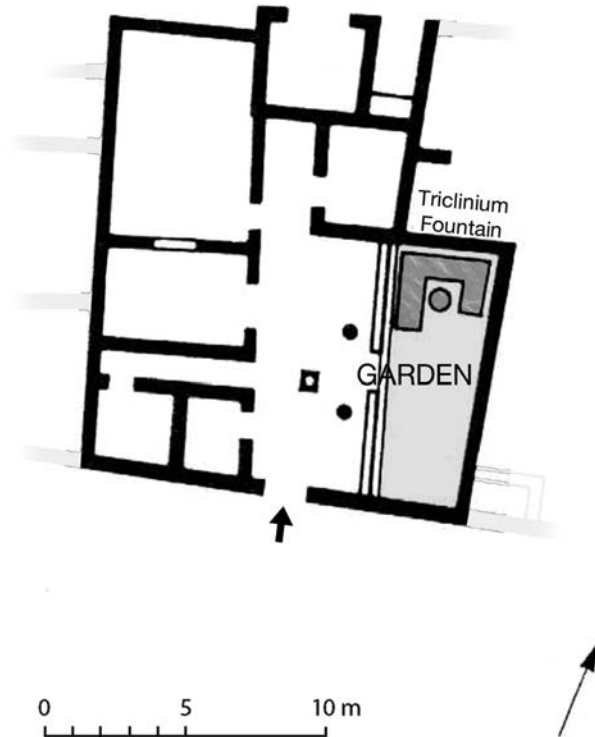


Figure 1.11 House of Acceptus and Euhodia, VIII.5.39, Pompeii, modified after Jashemski 1993, 216, plan 81.

DIVERSITY OF GARDENS IN THE *DOMUS*

There are so many variants of plan, position, and function of the garden, so many adaptations to the topography of the city, to urban constraints, to climatic and botanic environments, to water supply, and to local fashion, that we must emphasize the diversity of the garden as much as its common characteristics across the empire. The ubiquitousness of the garden peristyle, however, has overshadowed other types of gardens that do not conform to this archetype. Not only do these unconventional gardens relate differently to the rooms of a house but they also are more difficult to identify and excavate than the peristyle garden.

The Grand Peristyle of the Domus

The most ambitious architectural programs for a Roman house throughout the empire typically employed a large peristyle garden. Apart from the numerous examples from Pompeii there are a few large peristyle gardens uncovered in Rome, such as in the *domus* of the Vigna Barberini, described above, as well as in the house of Augustus, both on the Palatine. On the Caelian, excavations under the Military Hospital revealed an aristocratic house dating from the late Antonine period and occupying an area of around 8,000 m². It kept intact its large peristyle (26 m square) even into Late Antiquity, having been perhaps a residence of the orator and senator Quintus Aurelius Symmachus (ca. AD 340–402).³⁷

Likewise, the site of the presumed house of Alfenius Caenius Iulianus Camenius revealed a peristyle,³⁸ and an 1885 plan by A. Capanni depicts remains of porticoes, supposedly the *domus* of the Nummii, which included, perhaps, a *peristylum* and a *viridarium*.³⁹ Yet, there must have been many more houses with peristyles throughout the city, as attested by the *Forma Urbis Romae*, a plan of the city engraved on slabs of marble during the reign of Septimius Severus (AD 193–211), showing contiguous Pompeian type *domus* with peristyles in the area of *vicus Patricius*,⁴⁰ and even more examples in the neighborhood of the Portico of Livia. On another fragment, associated with the house of Pliny the Younger, located, according to Pliny, on the Esquiline Hill, are depicted some more or less regular peristyles.⁴¹ But, it is not always clear if these peristyles, even when securely identified, possessed gardens. For example, a peristyle partially revealed under the Museo Barracco in Rome did not appear to have been planted.⁴²

In other parts of Italy and Sicily, from the beginning of the Empire until Late Antiquity, the large peristyle dominated the architecture of the houses of the rich: the above-cited House of the Frescoes at Luni is a good example (Figures 1.2C; 1.2B).⁴³ Likewise, in Spain, the peristyle was a common element in the most impressive structures, whether in large cities or in secondary towns, thus showing a generalized diffusion of this architectural feature throughout the Iberian Peninsula.⁴⁴

In southern Gaul (*Gallia Narbonensis*),⁴⁵ an area under the influence of Italian fashions, the peristyle was adopted early, as in the House with Porticoes in the Clos de la

Lombarde at Narbonne at the end of the Republic and the House of the Dolphin at Vaison-la-Romaine, in the first phase dating from 40 to 30 BC. The great houses of Aix-en-Provence (the House with the Large Peristyle in the Jardins de Grassi; the House with the Large Peristyle in the Enclos Milhaud; the House with the Large *Opus Sectile*; and the House with the Semicircular Bay) follow the same principles as in houses in Vienne and Saint-Romain-en-Gal (House of the *Atrium* in the Nymphéas quarter; the House of the Lion). Smaller peristyle courtyards embellished houses in Fréjus (House on Formigé Square, in phase 2) (Figure 1.36A) and in Orange (House with Polychrome Mosaic at Saint Florent; House of the Mosaic with Meanders).

From the first to the third century, the wealthy *domus* in Gallia Lugdunensis (the House of the Masks, in Lyon; several Houses of the Clos du Verbe Incarné, and the House with the Xenia in Vaise, near Lyon), in Aquitania,⁴⁶ from Limoges (maison of the Seventh of March, House of the *Opus Sectile*) to Périgueux (House of the Tour de Vésone (Figure 1.27), House of “the Visitation”), or in Chartres (*Domus* of the Place des Epars), show a taste for large peristyle gardens. Furthermore, the House in rue de la Fraternité (Arras), the House in Vieux (Calvados), or the House of Neptune – excavation beneath the Collège Lumière (Besançon) confirm the popularity of the garden surrounded by porticoes farther north in Gallia Belgica.⁴⁷

In Britain⁴⁸ and Germania⁴⁹ excavations have shown that even in northern Europe with its much colder climate the garden with open porticoes or at least a courtyard with pool remained standard for upscale homes, a sign of Romanization and of belonging to the political and social elite.

Domus in Africa throw light on the role of the peristyle and by extension of the garden within the house.⁵⁰ In all urban contexts of North Africa, from Carthage to Acholla, from Caesaræ (Cherchel) to Timgad and Volubilis, *domus* were planned around peristyles. The adoption of peristyles, already under the influence of Greek Mediterranean models by the Punic Period (early third century BC), is attested by houses in Kerkouane, a town destroyed and abandoned in the mid-third century BC,⁵¹ but where all the courtyards were paved. Furthermore, the absence of *atria* at Kerkouane, and elsewhere, shows that African domestic architecture, in general, developed independently from Roman models.⁵² It was in a vestibule, rather than an *atrium*, where most visitors or clients were received and waited. Doors, curtains, and indirect access preserved the privacy of the interior spaces. According to the status of the visitor, he may have been shown into the peristyle. Although the vestibule may have been well appointed, sometimes even with a fountain, it was the peristyle that was meant to truly impress the visitor, who would have crossed through or at least gotten views of the ornamental garden while proceeding to a *triclinium* or reception rooms within the porticoes, with views onto the *viridarium*.

Recent scholarship on North Africa, notably in Tunisia, has made great progress in identifying peristyle gardens, ranging in size of the courtyards from the smallest, around 15 m², to the largest of well over 300 m². Among the largest are: at Acholla, the House of the Triumph of Neptune, 103 m² (Figure 1.20); at Thysdrus, the House of the Dionysiac Procession, 149 m², and the House of

Lucius Verus, 310 m²; at Carthage, the House of the Cryptoporticus, 249 m²; at Oudna, the House of Ikarios, 280 m²; and at Utique, the House of the Big Oecus, 378 m². Cities with orthogonal plans obviously put constraints on the size and shape of garden plots. In Timgad, for example, a town founded in AD 102 by Trajan, space in the urban *insulae* was not adequate for vast peristyle gardens. As a result, there were, instead, small courtyards simply paved or decorated with mosaics, perhaps even furnished with a fountain. Only on the outskirts of the city was there sufficient land to permit the building of substantial peristyles, such as in the great houses of: Sertius (3,600 m²), including two water basins, built atop the remains of an ancient rampart; and the House of the Hermaphrodite (60 × 28 m), constructed at the beginning of the third century beside a Trajanic wall.⁵³

Even in towns of Punic origins, as at Thuburbo Maius, where irregular *insulae* had been inherited from earlier plans, gardens existed (the House of Neptune and the House of Nicentius), but they remained relatively small and sometimes porticoes were even abandoned to allow more space, as in the House of Bacchus and Ariadne.

Regional studies of house architecture in the Eastern provinces are becoming more numerous: a corpus of Greek houses has been published recently⁵⁴ and with publications on Ephesus and Zeugma, houses of Asia Minor are better understood.⁵⁵ Several studies have been published on houses in the Middle East but investigations of enclosed gardens within them are still in their infancy.⁵⁶ Even if peristyles remained predominant in grand houses until the end of antiquity, it seems that

houses in the East had fewer peristyles with plantings than in the West.⁵⁷

Structure and Aesthetic of Porticoes

Structurally, porticoes were designed as simple post-and-lintel systems with columns or pillars supporting horizontal architraves. Yet, arcades – contiguous arches flanked by columns – were employed even in small houses, as shown by several from Pompeii, and may have been more popular than attested by the relatively small number of excavated examples.⁵⁸

For smaller plots of land that would not readily accommodate porticoes on all four sides, colonnades were laid out in U- or L-shaped plans. For example, in Pompeii, such porticoes were common and it seems a safe assumption that similar plans were frequent in other cities throughout the empire.

There were other ways of achieving an impression of grandeur even in small spaces. One was the so-called Rhodian peristyle, which is distinguished by one wider and taller portico, with the columns in the middle (directly in front of the reception room) sometimes larger and more widely spaced. Such features not only differentiated this space from the rest of the porticoes but also allowed for better viewing of the garden from inside the room facing this portico: the House of the Laurel-Wreathed Apollo at Vaison-la-Romaine or the House of the Golden Cupids at Pompeii (vi.16.7) are good examples.

In Pompeii and the Vesuvian region there are a sufficient number of examples,

as well as other parts of the empire, to show that on occasion barriers were constructed between the columns of a peristyle in order to physically separate the garden from the portico and to define the places where the garden could be entered.⁵⁹ These barriers may have been typically of wood, as attested more in wall paintings and less from physical remains; although fugitive charred traces sometimes have been reported immediately after excavation. Slots cut into the sides of columns and metal fasteners also suggest that some type of barrier had been between columns: House of the Chaste Lovers (ix.12.6),⁶⁰ House of the Bull (v.1.7/9),⁶¹ House of the Silver Wedding (v.2.1),⁶² House of the Tragic Poet (vi.8.3/5),⁶³ House of Meleager (vi.9.2),⁶⁴ House of the Sculptured Capitals (vii.4.57),⁶⁵ House of Triptolemos (vii.7.5),⁶⁶ House of the Wild Boar I (viii.3.8),⁶⁷ House of M. Holconius Rufus (viii.4.4),⁶⁸ House of the Cock (viii.5.2),⁶⁹ and House of the Centenary (ix.8.3/6) (Figure 1.12).⁷⁰ In the House of Castor and Pollux (vi.9.6–7) a diagonal lattice fence was documented, which is rarely physically attested. The presence of such barriers was perhaps more common than they appear in the archaeological record, although they were certainly not universal.⁷¹ For example, the three peristyles in the House of the Citharist (i.4.5/25) went through several remodelings up to AD 79, but none was enclosed. The fashionable House of the Vettii did not have them and the House of the Labyrinth kept its peristyle open to the end. As a result it is difficult to know when such barriers were built or even whether they were part of an original design or a remodeling.

Barriers, some only a few tens of centimeters high, essentially raised thresholds

Figure 1.12 House of the Centenary, IX.8.3/6, Pompeii, reconstructed view of peristyle.



(House of the Chaste Lovers [IX.12.6] – painted the same color red as the column bases),⁷² others as tall as a meter (parapets) are known to have existed between columns of peristyles, particularly, it seems, in the final years of Pompeii. Modern restorations and poor or incomplete documentation make it difficult, sometimes, to ascertain the ancient parts.⁷³ Even when there are clear physical remains, many were made of recycled materials and were typically poorly constructed and are now badly weathered, having been exposed by early excavations to the elements over many years. Important for our discussion is that occasionally these barriers could support narrow planters, which when filled with vegetation must have produced a pleasing band of color and scent around the garden and within the porticoes.

There are examples of such barriers elsewhere in the Roman world, but their dates are problematic and detailed descriptions and analyses are scarce.⁷⁴ Partially closed porticoes are found,

for example, in the Iberian Peninsula in some houses at Empuries and Mérida (House of the Mithraeum [Figure 1.13]). In Gaul, the House in Vigne de Fer Street in Augustoritum (Limoges) offers a good example of a vividly painted parapet (Figure 1.14).⁷⁵ In North Africa, closed peristyles are recorded from Cyrenaica to Tingitana Mauretania. Recent investigations in Tunisia have revealed that nearly half the peristyles there, with or without a garden, were closed.⁷⁶ Slots in column bases and stylobates, recorded in such places as Althiburos, Thuburbo Maius, Bulla Regia, and Oudna, indicate the position of attachments that likely were railings, fences, or solid walls, presumably of stone. Such cuttings are often considered later additions, although there is typically little evidence to know for sure. At Oudna, for example, in the great peristyle of the House of Ikarios, Paul Gauckler reported slots for wooden railings along the south and part of the north porticoes,⁷⁷ while between the columns of the other porticoes



Figure 1.13 House of the Mithraeum, Mérida.

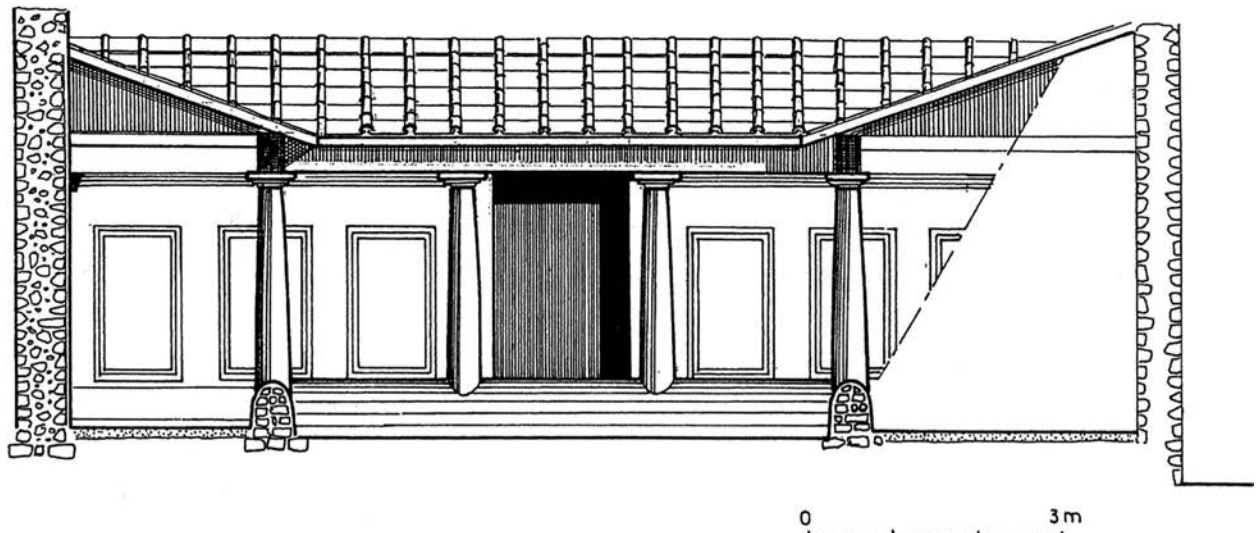


Figure 1.14 House in Vigne de Fer Street, Augustoritum (Limoges), elevation, after Desbordes and Loustaud 2000, 203, fig. 62.

were simple stone parapets, painted red.⁷⁸ Modest, small barriers between columns were undoubtedly more economical and frequent than carved wood; however, the choice of materials may have been determined not only by financial considerations but also by availability. For example, in Byzacena (from Thysdrus and Acholla, through Gighthis) scarcity of stone likely explains the exclusive use of quite low walls.

The enclosing of a colonnade may have been motivated by a number of different factors – climate conditions, social intercourse, personal taste – but the aesthetic value should not be overlooked. For example, low partition walls were sometimes painted to lend the impression of the garden extending beyond the colonnades.⁷⁹ The additions of partitions (whatever their form and decoration) between the columns of a colonnade clearly impacted the ambience of not only the interiors of the porticoes but also the gardens in the open courtyards.

The desire to close the portico was sometimes accomplished not only by permanent walls but also by curtains or shades, as revealed in Pompeii. These hangings blocked the view of the garden but moderated the temperature of the house against the summer heat and the drafts and cold of winter as well as protected the painted walls from weathering.⁸⁰

The use of window glass, beginning in the first century AD, as well as the heating of floors and walls were elements of private luxury, which Seneca the Elder believed weakened a man's constitution.⁸¹ Porticoes could have been at least partially glazed between the columns, as perhaps was the original design of the large peristyle of the House of the Frescoes at Luni,

dating from the Augustan to the Julio-Claudian periods.⁸² Likewise, the House of the Ephebe at Pompeii (I.7.10–12/19), the Casa dell'Atrio a Mosaico (IV.1–2) in Herculaneum, and the Villa at Oplontis had porticoes screened by wooden partitions or enclosed by glass windows.⁸³ A later example outside Italy is from the House of the Large Peristyle in Vieux (Calvados), where in the third century a large peristyle was built over an earlier complex of rooms, perhaps an *atrium*. The spaces between the columns may have been closed by wooden partitions, which had windows.⁸⁴

The Garden as Scenery

The desire to create the illusion of spaciousness in small quarters led some homeowners to look for clever ways to evoke the countryside. They sought to create outdoor settings that would ingeniously transport visitors beyond the house into a natural, although contrived, landscape. From the Augustan period, it is this spirit of the suburban villa that influenced, when space permitted, the design of gardens in the city. Paul Zanker has illustrated this process with one of the most elaborate scenic creations in Pompeii, that of the House of D. Octavius Quartio (II.2.2), where the country villa is clearly taken as a model.⁸⁵ This garden landscape unfolds along a canal, which runs from the terrace, giving a skilfully manipulated perspective view developed through water, architecture, and plantings.

Some houses beginning in the first century had garden spaces not entirely enclosed by porticoes but instead designed as autonomous or semi-autonomous

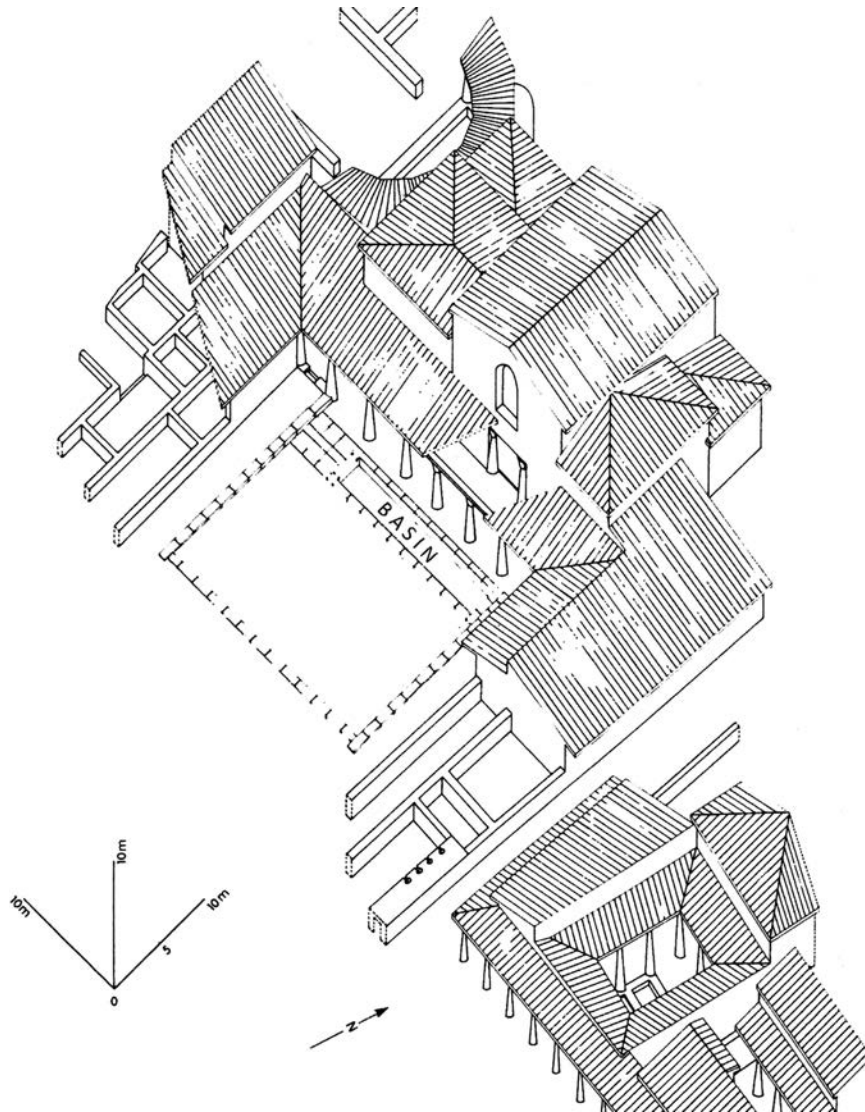
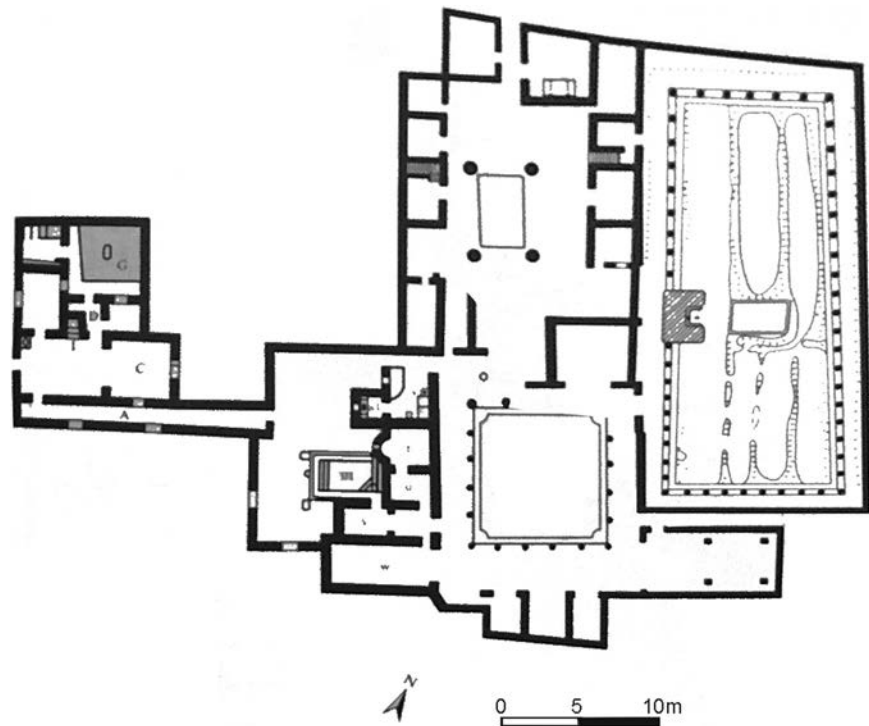


Figure 1.15 House at the Cours Pourtales, Orange, axonometric reconstruction after Jacob et al. 1987–8, 322, fig. 133.

spaces. For example, an elevated portico could act as a viewing platform and a transitional space between the *domus* and a more independent garden – the House of the Dolphin at Vaison-la-Romaine offers a striking case. Between 80 BC and AD 100 a parcel of land to the south, at a slightly lower elevation from the house, was added to create a large garden at least 32 meters by 14.50 meters, surrounded by wide galleries on at least two sides – the south has not been excavated. At the north was originally an open terrace, which by

the middle of the second century included nine columns to form a portico. A long basin running below the length of this residential north terrace included alternating fountains, fishponds, and planting beds, which offered a spectacular threshold to the large open court beyond.⁸⁶ The combination of an elevated “viewing” portico looking over a pool and onto a scenic garden appears also in the neighboring House of the Silver Bust.⁸⁷ We may observe a similar layout in the House at the Cours Pourtales in Orange (Figure 1.15).⁸⁸

Figure 1.16 House of the Silver Wedding, v.2.1, Pompeii, plan, after Jashemski 1993, 110, plan 36.



When space was not at a premium, independent gardens, as “pieces of the country” in the city, were developed. Surrounded by walls, these gardens would stretch along the outside of a house, not unlike modern gardens. In Pompeii, we can mention the House of Pansa (vi.6.1/12) with its produce garden occupying, at the end of the insula, one-third of the entire property. This parcel, bordered by a single portico, was added to the property only at the end of the history of the city. The *triclinium* opened on one side to an old classic peristyle and on the other, through a deliberate widening of columns, to a vast open garden.⁸⁹ In the House of the Silver Wedding (v.2.1: Figure 1.16), the old Rhodian peristyle from the late Republican period was later complemented by a pleasant outdoor space: a large trapezoidal area was leveled in order to create, in its final phase, a pleasure garden, with an elegant fountain *triclinium* on axis to a basin.⁹⁰ In the House of M. Obellius Firmus (ix.14.2/

4)⁹¹ was a large open area at the back: one partially surrounded by porticoes and the other only enclosed by a wall.⁹² A fountain of twelve water jets linked these two gardens.

In Gaul, there are several good examples of large gardens in the suburbs where the residences could be called either *domus* or else suburban villas by virtue of their locations some distance from the town center. For example, at Arausio (Orange), the vast residence at La Brunette, on the outskirts of town, had a huge garden, almost a park, bordered by a promenade (Figure 1.17).⁹³

Gardens on Terraces

In the planning of houses in the countryside architects and owners were ready to take advantage of the possibilities offered by the contours of the surrounding terrain and by its natural settings. Instead of being

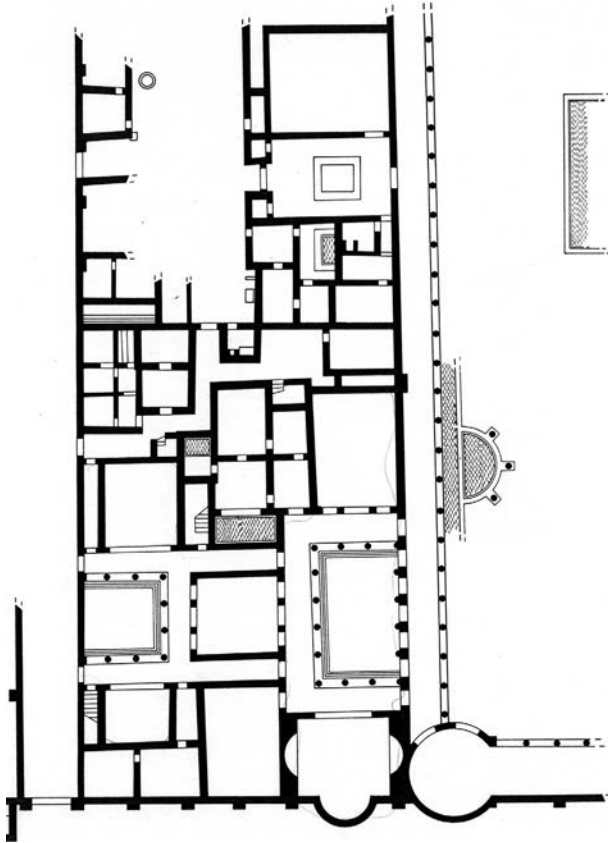


Figure 1.17 Residence La Brunette, Arausio (Orange), plan, Phase II, after Mignon and Doray 1997, 199, fig. 15.

the focus from large reception rooms, the garden unfolds below balconies or terraces from which one can also admire views of the distant landscape. The quality of such views, mentioned by Pliny as a major asset of his country villa, could also, of course, be a feature of some urban houses. Indeed, Horace praised such *domus* that had views of the countryside.⁹⁴ Some building sites were surely chosen primarily because of the possibility of magnificent views, such as those from the house in the area now called the Vigna Barberini on the Palatine.⁹⁵ Through the three porticoes of its peristyle one would have had a view of the valley where later rose the Colosseum. Towns built on hillsides were natural overlooks, such as Vienne on the

Rhône, where houses with gardens on several levels occupied the lower slopes of Mont Salomon and Mont Saint-Just, near the Odeon.⁹⁶ For example, the House of the Ivory Head was built on a man-made terrace more than 6 meters above the street. The garden, with a U-shaped pool in front of the colonnades on three sides, offered from the open side magnificent views over the Rhône. From a reception room behind the main portico one could have enjoyed a view through the artificial assemblage of portico and garden to the natural landscape of the Rhône and distant hills.

Cities built on high ground were natural places to site houses in relation to distant landscapes or to use water as decoration, particularly when gardens were difficult to build within the constraints of an urban environment. In the East, Antioch had a series of rich homes boasting fountains and gardens that climbed the slopes of Mount Silpius among refreshing natural springs, as described by the fourth-century orator and native son Libanios.⁹⁷ The narrowness of the terraces and the difficulty of their retaining soil led, however, to a reduction of plantings and an abundance of water displays, as in the House of Iphigenia on Antioch's Mount Staurin, where a system of pools, probably U-shaped, ran along the walls of its courtyard.⁹⁸ Perhaps for similar reasons gardens in the multilevel houses on the terraces of the mountains at Dougga in Proconsular Africa are rare; only the House of the Trifolium at the bottom of the slopes had enough room for a large peristyle.⁹⁹ At Djemila, an Algerian town built on rugged terrain, most of the houses had only small interior peristyle gardens, but surprisingly no terraces taking advantage of the panoramic views.¹⁰⁰

Figure 1.18 Casa dei Cervi, iv.21, Herculaneum.



For houses with a view of the sea, the well-known examples from Campania also confirm the importance of terrace gardens. Seeking the same advantages as suburban villas, such as the Villa of the Mysteries with its hanging gardens, and maritime villas, some Pompeian houses climbed the city wall, piling up loggias and planted spaces; the house of Fabius Rufus (vii.16.17/22), with magnificent views from the western wall, is a good example.¹⁰¹ At Herculaneum the Casa dei Cervi (iv.21: Figure 1.18), the Casa dell’Atrio a Mosaico (iv.1–2), and the Casa del Rilievo di Telefo (Ins. or. I.2–3) each attempted to profit, in its own way, from the view and the fresh air.¹⁰²

In cities along the sea, gardens and porticoes facing the shore must contend with the destructive potential of saltwater, tides, and storms.¹⁰³ As a result, at the maritime city of Hippo Regius (Hippone) in North Africa, along the sea front were

gardens enclosed by interior peristyles rather than gardens and porticoes open to the sea.¹⁰⁴ Similarly, in the House of the Frescoes at Tipasa (Algeria),¹⁰⁵ a terrace, called “solarium,” was opened toward the sea and therefore was not planted, but the peristyle courtyard did contain plantings.

The Secondary Garden

In houses of very large dimensions, the need to light, ventilate, and freshen rooms led architects to incorporate into the interiors small courtyards, sometimes even with porticoes and gardens. For example, reception rooms could be flanked by large shafts with windows, permitting light and air to enter but also lending views into their interiors, which may have been planted. Although such gardens in light wells are rarely attested archaeologically, given the Roman penchant for plants it

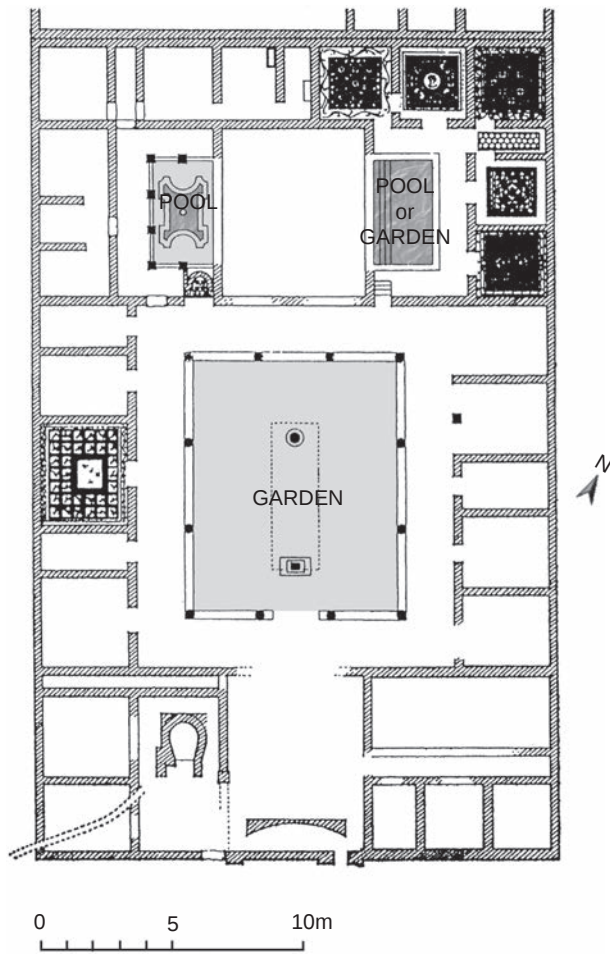


Figure 1.19A House of the Birds, Italica (Lusitania), plan modified from Gros 2001, 182, fig. 191.

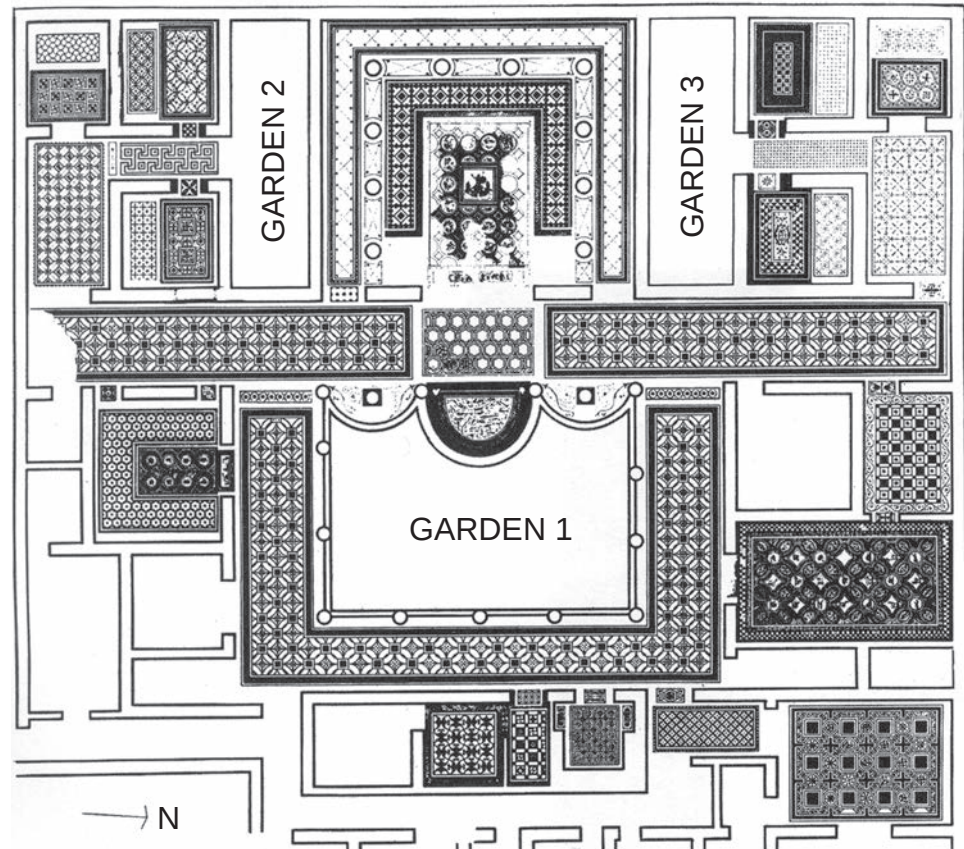
seems likely that at least some contained plantings. Inaccessible yet open to the sky, these enclosed areas were ideal locations for gardens meant to give visual and aromatic pleasure. An exceptionally large house in Italica (Lusitania), the House of the Birds, was organized around a large peristyle garden, which occupied one quarter of the entire footprint of the house (Figure 1.19A). Furthermore, a large reception room was flanked by two courtyards, identical in size but quite different in treatment. One was almost completely occupied by a rectangular pool; the other had a mixtilinear shape fountain with a marine decorative mosaic on the inside walls. The basin was surrounded by a planted space bordered by columns (Figure 1.19B).

Although not confirmed from the physical remains, it has been proposed that windows opened onto these flanking courtyards. On the other hand, these courtyards may have been tied to the rooms facing into them and therefore their privacy was more important than



Figure 1.19B House of the Birds, Italica (Lusitania).

Figure 1.20: House of the Triumph of Neptune, Acholla (Tunisia), plan (adapted by E. Barthélemy) after plan II (R. Prudhomme) in Gozlan 1992, pl. I.



views from the reception room.¹⁰⁶ At Nabeul in Tunisia, in the House of the Nymphs, the dining room, one of the biggest *triclinia* of Africa, is flanked by two small tetrastyle courts with a fountain in the center: one with an *aedicula* fountain adorned with figured paintings, but no garden.¹⁰⁷ Likewise in Tunisia, at Utica, in the House of the Cascade, windows in the side walls of the dining room lent views into small courts with pools, but it is not known whether these courts were ever planted.¹⁰⁸ It is possible that two rectangular light wells with earth floors flanking a Corinthian *oecus* in the House of the Triumph of Neptune in Acholla (Tunisia) could have been planted¹⁰⁹ (Figure 1.20: identified as Garden 2 and Garden 3): One light well was reached only from the private apartments facing

onto it; the other, although not well preserved, appears to have had access from the *oecus*.¹¹⁰ The House of the Large *Oecus* at Utica also has a court on each side of its Corinthian *oecus*: one side a courtyard opening on private apartments, the other an open space (planted?) surrounded on three sides by columns. Another *triclinium* of the same house, on the other axis of the house, was also flanked on one side by a light well. The House of the Peacock at Thysdrus¹¹¹ (El Jem), covering nearly 1,800 m², sums up the diversity in treatment of secondary courtyards, which could have been planted. They are rarely symmetrical in order perhaps to avoid monotony (Figure 1.21). Facing a large *viridarium* A in the vast peristyle (13 × 10.5 m) of the *domus*, the main reception room (B) is framed on the other three sides by open

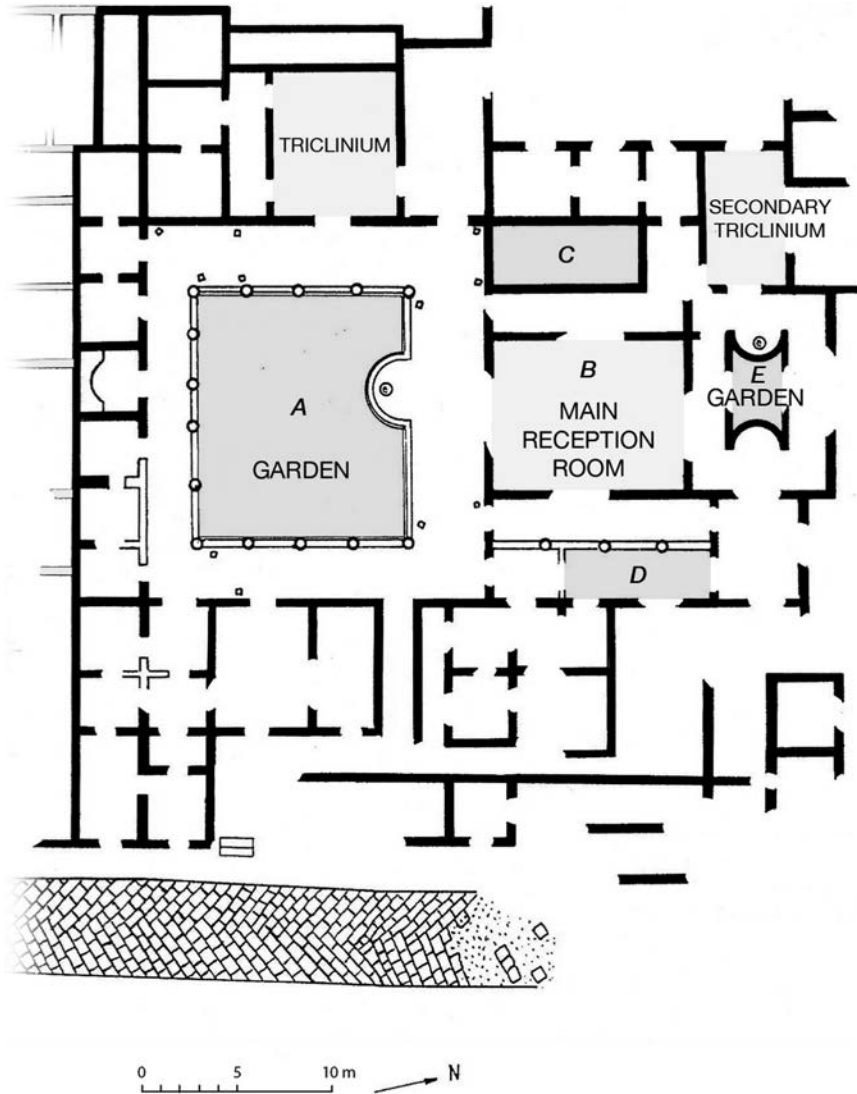


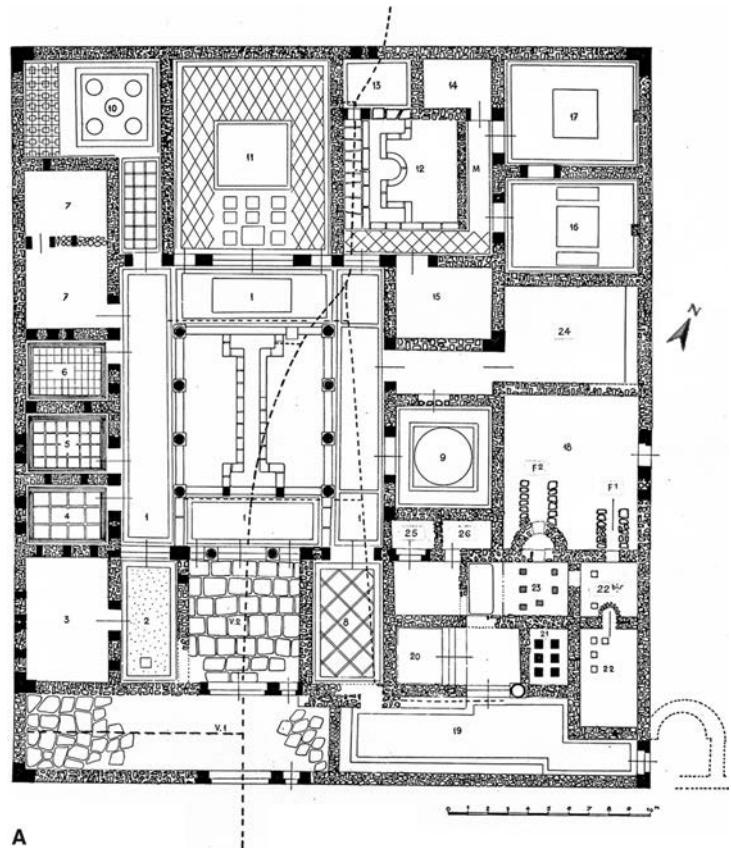
Figure 1.21 House of the Peacock, Thysdrus (El Jem), plan, modified from Foucher 1961, 2.

spaces treated as little gardens: to the west is a corridor paved with mosaic along a “patio” C, which could have been planted. To the east is another corridor mosaic, bordered by a little garden D, serving an open-air courtyard. Finally, at the back of the hall at the north, a third, little garden, E, of 10 m² was surrounded by six columns (not indicated on the plan); the planted area¹¹² consisted of two opposing apses facing two reception rooms, one of which was a secondary *triclinium*.

But it is at Volubilis (in Roman Mauritania Tingitana [Morocco]) that one can study a

series of refined examples of light well/garden spaces in the interior of houses.¹¹³ At the House of the Retinue of Venus (Figure 1.22A) an independent secondary court (12) had paved walkways on three sides within which was a decorative U-shaped pool with an apse. The remaining space in front of the pool was planted (Figure 1.22B).¹¹⁴ The House of the Columns¹¹⁵ had a typical large peristyle with an imposing and unusual circular pool, but also a secondary court at the north that had a U-shaped pool with semi-circular niches (Figure 1.23). A similarly shaped pool with lobes is found in a little

Figure 1.22A House of the Procession of Venus, Volubilis (Mauritania Tingitana [Morocco]), plan, after Etienne 1960, pl. xvii.



A

Figure 1.22B House of the Procession of Venus, Volubilis (Mauritania Tingitana [Morocco]), room 12, after Thouvenot 1958, pl. xi.



B

courtyard of the so-called House of the Gold Ring, but the basin fills half of the space and the rest, in front of the pool, is covered by concrete.¹¹⁶ In the last cases observed, we must note a matter of local fashion: these little elongated pools with Baroque forms seemed to have particularly pleased the inhabitants of Volubilis; they are found even in small houses, such as in the corner of a courtyard (whether partially covered is unclear) of the House of the South Cardo I (Maison du Cardo Sud I), where it was visible from the vestibule.¹¹⁷

AESTHETIC QUESTIONS AND GARDEN COMPONENTS

Pleasure gardens have been much discussed with respect to their individual designs as well as their general spatial and social relationships with open and covered areas of the house. The scarcity of actual remains or even of archaeological remnants for plantings and even for walkways and paths, as well as for major pieces of decor – statues, benches, pergolas, *triclinia*, and so on – makes it difficult to understand the design and layout of most gardens. Given such paucity of evidence in most cases we can hope to achieve only a partial reconstruction of any specific ancient garden; however, the collective evidence permits reasonable speculations on the ancient Roman garden in general.

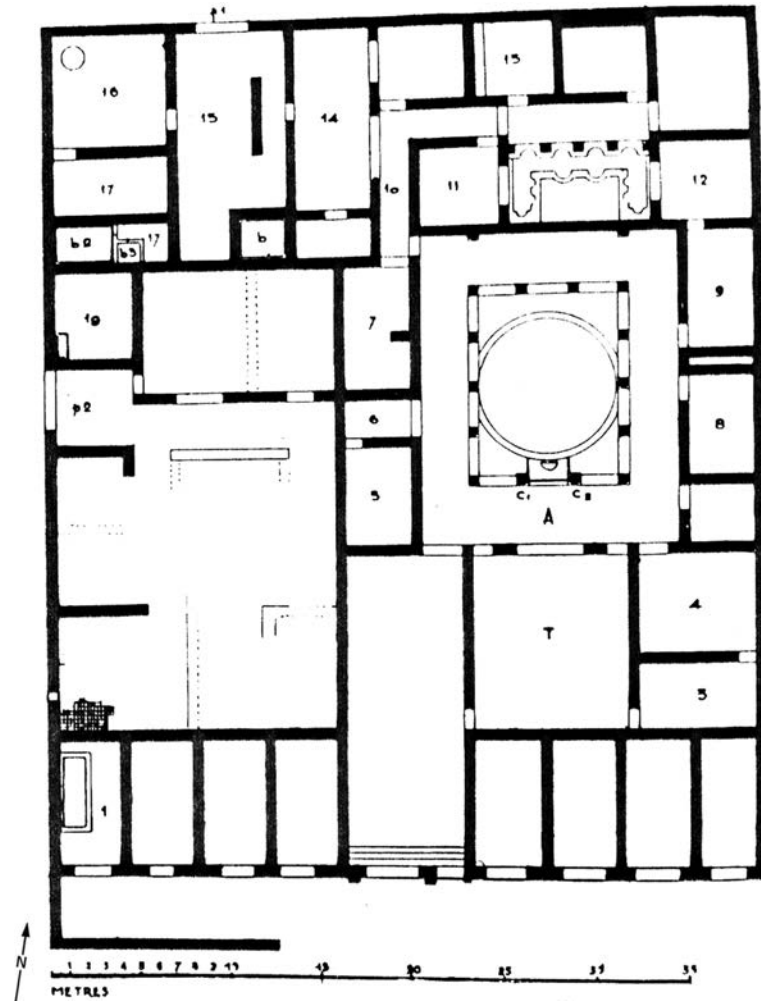
Water in the Garden

Pools, fountains, water jets, and *nymphaea* characterize the wealthy Roman garden

because the passion for water displays never diminished from the early Empire through Late Antiquity.¹¹⁸ Pools and splashing waters not only occupied gardens, but also entered vestibules, reception rooms, and banquet halls. Water shows were so ubiquitous and extravagant in wealthy homes that they became easy targets for moralizers who denounced what appeared to them as excess and an increasingly indulgent lifestyle. Seneca is typical in his condemnation of such luxuries, in which he contrasts his own frugality with great feasts “and the waters, transparent to the bottom, that flow around the guests even as they banquet.”¹¹⁹ Such water displays required a complex infrastructure that has attracted the attention of excavators and historians to such an extent that it is perhaps all too easy to forget that the majority of gardens had neither pools nor water supplies. Thus, for example, the garden peristyle of the luxurious House of the Labyrinth in Pompeii (VI.11.9/10) had neither fountain or pool, although from early times it had admirable reception rooms and used water in comfortable baths – decorated, in fact, with paintings of gardens. A cistern, whose opening was integrated into the stylobate, could have furnished only the amount necessary for watering plants but certainly not enough for any water displays.

The location of water displays is closely linked with the architecture of which it was a part. A position in the center of a court is common, but displays near porticoes are even more frequent. Water basins could be focal points from entrance halls and reception rooms or from doorways of other rooms facing into courtyards. They could also act as backdrops to plantings and other

Figure 1.23 House of the Columns, Volubilis (Mauritania Tingitana [Morocco]), plan, after Thouvenot 1945, fig. 4.



decorative items such as mosaic or stone pavements, which lent guests access to them. Basins could be below or at ground level, permitting the water to be mirror-like surfaces or else above ground as more independent elements from the surrounding plantings. Regardless of their height or shape, most water basins dominated the immediate surroundings with their visual and aural enticements so that the plantings and even the architecture played supporting roles in these theatrical performances.¹²⁰

The frequency of waterworks in houses and gardens depends, obviously, on the availability of water, so it is not

surprising that towns with aqueducts had many fountains. For example, the bringing of water from Serino during the reign of Augustus radically changed the aesthetic of the gardens of Pompeii at the beginning of the first century AD.¹²¹ On the other hand, as demonstrated by Louis Foucher and Hédi Slim, in arid zones of Africa, where water was carefully conserved, pools in houses, such as those in Sousse (Hadrumetum) or Thysdrus (El Jem), are rare.¹²² Thus, the discovery of a *euripus* in the House of Lucius Verus (Figure 1.24) and an even larger one in the House of Africa at Thysdrus (Figure 1.25) shows that water displays

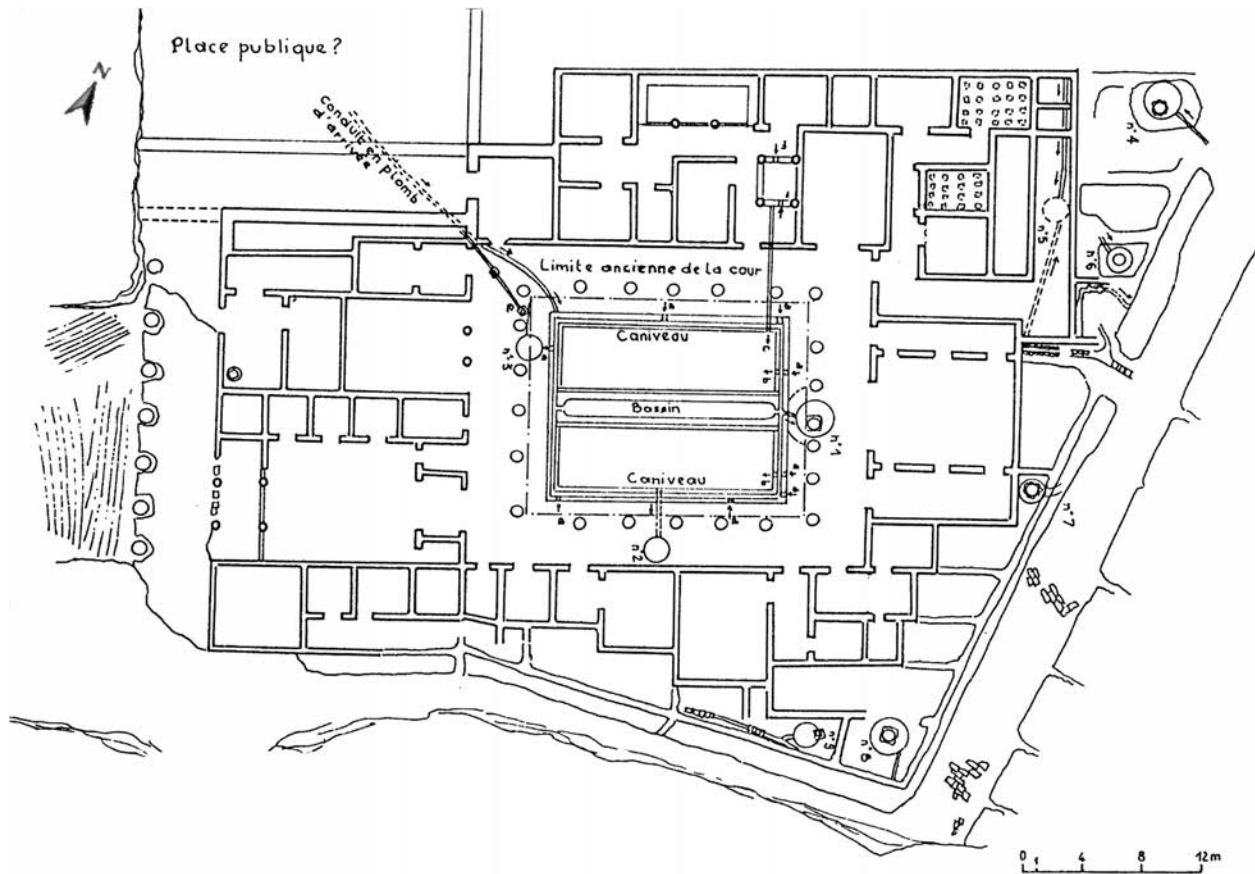


Figure 1.24 House of Lucius Verus, Thysdrus (El Jem), plan, after Slim 1990, 191, fig. 8.

were desirable not only because of their aesthetic value but also perhaps more importantly as overt displays of wealth.¹²³ When enough water for displays, even for the wealthy, was unavailable, such as in Acholla, basins are not found; thus in the House of Neptune, an apse with a marine theme attempted to evoke water imagery (Figure 1.20).¹²⁴ Such apses in front of reception rooms are, in fact, frequent: the house of Asinius Rufinus at Acholla; the House of the Dolphins, House of the Peacock, and the House of Lucius Verus at Thysdrus; or the House of Castorius at Djemila¹²⁵ all had them.¹²⁶ That these semicircular forms substituted for fountains seems likely, particularly in the House of the Viridarium with Niches at

Pupput (Tunisia), where a multiplicity of little apses adorned with varied mosaics decorated the periphery of the peristyle.¹²⁷

Forms of Pools

Based on recent corpuses, types of basins and their geographic diffusion can be traced with relative assurance. For example, given the Roman penchant for circles and squares it would seem likely that circular basins in the middle of quadrangular areas would be particularly popular; yet this is not the case whether in Campania or the rest of the empire.

There are, however, a few noteworthy ones at Pompeii: in the House of the Hunt

Figure 1.25 House of Africa, Thysdrus (El Jem), peristyle basin viewed from the *triclinium*.



(vii.4.48), a painted blue pool, 2.6 meters in diameter, occupied almost all of the peristyle courtyard; in one of the gardens of the House of Fabius Rufus (vii.16.17/22) a round pool was enlivened by a central water jet; in the house of M. Lucretius (ix.3.5/24) water cascaded down marble steps into a channel leading to a round pool that was the focal point of the garden; and in the middle of the little peristyle court of House 1.2.6 was a round pool that had been already filled in by AD 79. The appeal of a circular shape within a peristyle could also be achieved not only through water but also through plantings and paths: in the House of the Silver Wedding (v.2.1) a slightly raised circular planting bed, some 3 meters in diameter, was employed (Figure 1.26); in the House of the Bracelet (vi.17.42), and the House

of the Chaste Lovers (ix.12.6), there were large circular open areas in the center of the gardens.

In the rest of the empire the circular form is geographically dispersed but equally rare.¹²⁸ There are several examples from Gaul: in the first-century garden of the Clos de la Lombarde in Narbonne; in the House of the Tower of Vesunna the circular pool had in it a water jet with a circular basin (Figure 1.27); and in the court of the first *domus* of the Neyron insula at Clermont-Ferrand, built after the end of the first century and lasting through the end of the second, was a circular pool. In North Africa, as previously mentioned, the House of the Columns at Volubilis (Figure 1.23) had a shallow circular pool covering a large part of the peristyle. It is the only known large example of the type



Figure 1.26 House of the Silver Wedding, v.2.1, Pompeii, central peristyle, after Jashemski 1993, 112, fig. 123.



Figure 1.27 House of Vesunna, Périgueux.

in the whole of this city, where the form is otherwise used only in a secondary court and on a much smaller scale.¹²⁹

A rectangular pool with an apse was a common feature in houses of the Imperial era, although it is not well represented at Pompeii. There are only several examples apparently from near the end of the town's life: one is in the center of the peristyle of Paquius Proculus (1.7.1), in front of a summer *triclinium*;¹³⁰ another, almost in the center of the peristyle with the apse facing the entrance and *atrium* wing, is in the House of the Centenary (1x.8.3/6);¹³¹ and in the House of the Cock (viii.5.2), one occupies about a quarter of the surface in front of planting beds defined by walkways.¹³² In the House of the Bracelet, guests in the water *triclinium* would have looked out over a pool with an apse at the far end, as though leading the viewer farther into the garden. In the garden of the House of a Barber (viii.4.12/13) the pool (with a water jet) is off-center in order for its apse to be on axis with the entrance.¹³³ The popularity of the rectangle/apse pool in Pompeii is confirmed in the house of C. Vibius Italus (vii.2.18),¹³⁴ where such a pool, on axis with a reception room, was awaiting a coating of hydraulic cement and water supply just prior to AD 79. The combination of rectangle and apse was popular in other parts of the Roman world and continued in use well after the destruction of Pompeii: for example, at Antioch in the House of the Calendar;¹³⁵ in Spain, in one house of the Alcazaba de Mérida;¹³⁶ at Volubilis, in the House of Flavius Germanus;¹³⁷ and in Gaul, in the House of the Polychrome Mosaic (B) of the Saint-Florent quarter; perhaps in one of its neighbors, at Saint-Romain-en-Gal in the House of the Column (phase 1); and

in the House of Sucellus and in a house on the Rue des Colonnes in Vienne.

On the other hand, the semicircular fountain apse, which is common in several provinces in Africa and Hispania, remains rare in Pompeian houses. In the House of M. Fabius Amandus (1.7.2/3), a small semicircular pool, supplied by rainwater, lies against one wall of a minuscule garden, under a window of the *atrium*. At the Pompeian House of the Black Wall (vii.4.59), the garden of the pseudo-peristyle was adorned with two fountains: one apsidal pool (3.32 m in width) and a small square pool (1.23 × 1.16 m), decorated with a marble checkerboard pattern and a central water jet. These basins were carefully located on axis with the wider intercolumniations of the colonnades, lending greater visibility from reception rooms.¹³⁸

In the peristyle of the House of Trebius Valens (iii.2.1), a summer *triclinium* faced an apsidal pool, which was fitted out as a fountain in the final years of the city.¹³⁹ In one of the largest *domus* of Pompeii, the House of the Citharist (1.4.5/25), appears an arrangement that would become typical later in Africa: a semicircular pool with the straight side against a portico. Around the curving rim six bronze statues of animals were arranged for optimal viewing from the adjacent portico. This relatively small basin was only constructed after a large rectangular pool (10.8 × 3.5 m), which occupied much of the courtyard, had been filled with rubble. The abandonment of the larger water display may have been the result of the earthquake in AD 62 and/or a lack of a sufficient water supply to support such a large pool. Regardless of why this type of basin was constructed, it is clear that the owners wished to have at

least a small water display as a focal point of their peristyle garden.

It was in North Africa, beginning in the second century, that the apse fountain, built above ground and facing an important passage or reception room, became characteristic of the African *domus*.¹⁴⁰ Elsewhere in the empire, this form did not find wide acceptance, or was modified according to presumably local or individual tastes. For example, there are unique cases of a semicircular pool in Antioch, Daphne, and Seleukeia, where in the House of the Triumph of Dionysos, the apse basin, placed below the portico, is as wide as the main *triclinium*.¹⁴¹

An elongated pool, sometimes called a "Nile" or *Euripus*,¹⁴² was inspired by large pleasure villas and public buildings of Rome and Italy, and enjoyed some success in private houses beginning in the first century. It could produce a spectacular effect of extending the perspective, as we have discussed, at the House of Octavius Quartio in Pompeii. Single long pools running in the middle of peristyles occur in large houses of North Africa, for example: at Utica in the House of the Large *Oecus*,¹⁴³ at Thysdrus in the House of Lucius Verus (Figure 1.24), and in the recently discovered House of Africa, where the large rectangular pool had an apsidal fountain facing the *triclinium* (Figure 1.25);¹⁴⁴ at Althiburos in the Houses of the Fishing Scene¹⁴⁵ and the House of the Muses,¹⁴⁶ where the ends terminate in apses; and in the House of Sertius at Timgad and in the main peristyle of the House of the Procession of Venus at Volubilis, where both pools take the form of an "I" (Figure 1.22A).¹⁴⁷

Often a long rectangular pool, instead of being in the middle of a peristyle,

runs along a single portico, perhaps to emphasize its importance over the others. Examples of channels in peristyles along the perimeter of the courtyards are particularly numerous in Gaul, such as in the House of the Laurel-Wreathed Apollo at Vaison-la-Romaine.

Studies of the evolution of pools in Vienne and Saint-Romain-en-Gal have shown that from the beginning of the second century AD U-shaped pools became desirable accessories in enclosed courtyards, several with impressive dimensions, as in the House of the Ocean Gods (Figure 1.28) or in House B under the High School.¹⁴⁸

The House of the Columns (Phase 2: Figure 1.34),¹⁴⁹ House of the Dove,¹⁵⁰ House of the Five Mosaics,¹⁵¹ and House of the Ivory Head¹⁵² are good examples that become common in Vienne and Saint-Romain-en-Gal. The addition of a fourth channel to the typical U-shaped pool enclosed the entire courtyard with water, as in the House of the Lion¹⁵³ and House of the Fishpond (phase II).¹⁵⁴ Peristyle gardens surrounded by water became widespread in the western provinces of the empire. Similarly, in Spain at Mérida in one of the houses of the amphitheater quarter and at the House of the Mithraeum,¹⁵⁵ a channel of water surrounds the gardens (Figure 1.29). This concept was employed in domestic architecture in towns but is also found in several villas in Gaul and Spain, as in a villa of Arcos de la Frontera (El Santiscal – Cadix)¹⁵⁶ or in the villa of Cardilius (Torres Novas – Portugal).¹⁵⁷ Houses in North Africa did not employ such water channels around gardens, although the principle was used in large public complexes, as at Bulla Regia in one of the monumental esplanades.¹⁵⁸

Figure 1.28 House of the Ocean Gods, Saint-Romain-en-Gal.



Figure 1.29 House of the Mithraeum, Mérida, peristyle garden.



Undulating and Spraying Waters

Channels were not always straight. They could include apses as well as other curvilinear forms, and their positions were not

confined to the perimeters of gardens. In fact, veritable “water gardens” were created, the planted areas reduced to elevated islands, divided into symmetrical beds by canals, and sometimes accented with fountains.¹⁵⁹ For example, in the House of



Figure 1.30 House of the Water Jets, large peristyle, Conimbriga.

the Frescoes at Luni¹⁶⁰ there are many little water jets along the rims of the channels (Figure 1.2B), as also at the House of the Water Jets in Conimbriga (Figure 1.30).¹⁶¹

Beginning in the Republican period, jets were necessary parts of waterworks to lend sound and movement to a garden. For example, Cicero, advising his brother on the arrangement of a villa, wrote: "For my part I'll promise what I better understand, that you will have an exceptionally charming country house when certain extras have been put in: a fish pond, fountains, a *palaestra*, a wood."¹⁶² Likewise, in the *domus* water in motion was a sign of refinement not only in gardens but also in courtyards without plants. As *nymphaea* appeared early in the Augustan period in *domus*,¹⁶³ so water jets became prevalent in houses of the first century, where they lent motion to pools and changed the aesthetics of gardens. After an aqueduct brought abundant water to Pompeii, jets became popular in private homes, where they were often installed in the *impluvium*

of the *atrium*, radically transforming this official room into a more informal space, like a peristyle. There are many examples, but we will cite only the House of Obellius Firmus (IX.14. 4/2), where the sound of water is associated with a sculpture in front of a sumptuous *cartibulum* (oblong table): water spouted out of a large marble disk in the center of the *impluvium*, while a satyr statue – placed atop an old fluted *puteal* – sent its waters into a rectangular marble basin situated against the border, inside the *impluvium*.¹⁶⁴

The types of waterworks in Roman houses are so numerous and varied that they deserve a study of their own. Some examples include: the simple central vertical and lateral jets whose streams fell typically into elongated basins; water jets directly inserted into the garden to irrigate as well as to be enjoyed; rims of pools pierced by conduits; and even pipes emerging from the shafts of columns, as at the House of Epidius Fortunatus at Pompeii (I.3.3).¹⁶⁵ Pompeii lends some

hints of the effects of water displays, especially where it is possible to understand the water supply. Nozzles could be set around the edges of basins: at the House of Obellius Firmus, there is a straight line of water jets that emphasized one side of the pool, which was located between a porticoed garden and a more informal area at the back of the *domus*; a semicircle of twelve jets enlivened the pool at the house of Trebius Valens; and at the House of the Golden Bracelet a half cupola in front of a *triclinium* had twenty-eight jets. Later, the same principle was followed in apse fountains in North Africa, where jets were frequently inserted in shell forms, spraying water to the center of pools, as in the House of the Fishing Scene and the House of the New Hunt at Bulla Regia.¹⁶⁶

Outside the Vesuvian area the looting of garden sculptures and lead pipes deprives us of knowing for certain what effect the combination of water and sculpture may have produced. But several African apse fountains, such as those at Cherchel¹⁶⁷ or Timgad, as well as some pools in southern Gaul, have nearby socles on which stood presumably statues or vessels in bronze or marble, remains of which have been found out of context in the excavations of these *domus*. We can be assured only in cases where there is a clear water supply that the nearby sculptures or vessels served as water displays. Perhaps most examples were simply decorative elements such as the sculptures near the pools in the House of M. Lucretius (IX.3.5/24) or the House of Ceres (I.9.13–14) at Pompeii.¹⁶⁸

A jet is frequently atop a series of basins, producing a cascade of water as it fell from one basin into another. In Gaul, Fréjus offers two good examples, one in the “Clos de la Tour” (House IV-30)¹⁶⁹ and the other

in a house with peristyle which replaced, at the end of the first century, the *domus* in Formigé Square (see below): in the garden with porticoes, a *euripus* was fed by a jet of water falling into a basin at one end, flanked in a second phase by two symmetrical flower boxes (Figure 1.36B).¹⁷⁰

Sometimes, a U-shaped channel employed multiple jets. This arrangement may be seen to good effect in the House of the Vestibule with Columns at Saint-Romain-en-Gal. A U-shaped shallow basin, covered with marble, followed three sides of a peristyle. Another pool (6.50 × 2.50 m, revetted with marble) ran parallel to the fourth colonnade, thus virtually surrounding the courtyard with water. A lead water pipe, arranged on the bottom of the U-shaped basin, fed seven little jets alternating with six double nozzles, several still *in situ*, around a central spray. These gave sound and movement to this basin in contrast to the still waters of the rectangular pool in front of the main portico.

Control of water pressure by faucets or by the diameters or shapes of pipes made possible infinite variations in the appearance of the sprays, as, for example, in the House of the Vettii.¹⁷¹ They are sometimes flattened into a fan shape that diffused the water, creating mists to refresh the air, as we can suspect was the case for the statuettes of boys holding ducks from the House of the Vettii, which must have produced relatively powerful jets of water. All this visually artful display of water required, of course, technical installations such as valves to control pressure or to close pipes.¹⁷²

The taste for cascading water, deriving from such displays in monumental *nymphaea*, also impacted the visual and aural



Figure 1.31 House of Meleager, v1.9.2, Pompeii, water basin in the garden.

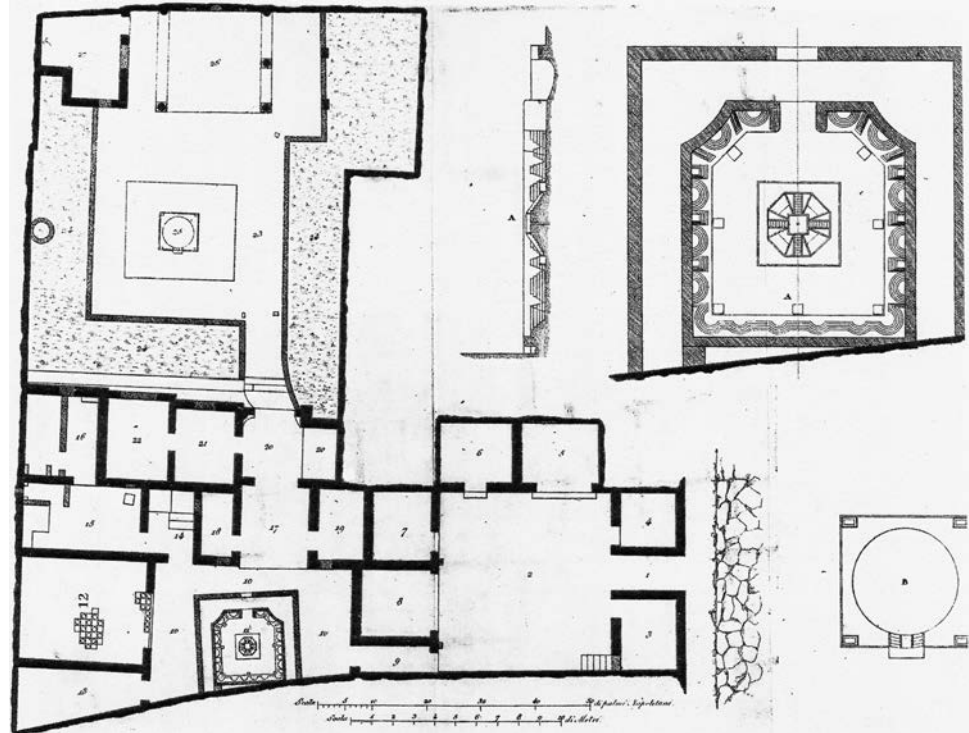
aesthetic of the garden. Fountains in the form of stepped pyramids¹⁷³ or of stairs often were positioned at the edge of pools, as in the Houses of Meleager (Figure 1.31) or of M. Lucretius, or they articulated the rim of a *euripus*, as in the House of Octavius Quartio. New categories of sculptures, made in bronze, stone, or marble, appear to complete the scenery. Some perhaps were made specifically for such locations: mythological figures from the sea or water world; nymphs with shells; *erotes* or Nereids on dolphins; or Dionysiac *thyasoi*. Some images could be humorous, such as drunken Hercules, or playful, such as frolicking satyrs, or more directly linked to the fecundity of gardens, such as Priapus. Some were copies of popular images – from poor quality to real masterpieces – in varying scales. Others were more decorative and pedestrian, such as boys holding ducks or geese, or animals. At least some

sculptures were adapted as fountains, as attested by the insertion of pipes, sometimes in a very rudimentary way.

In the most extravagant creations, it is the number of jets and the variety of water effects and statues that lend a sense of luxury to the garden, such as the ingenious waterworks in the Pompeian gardens of the House of Apollo,¹⁷⁴ or in the justly celebrated House of Octavius Quartio,¹⁷⁵ or the House of the Vettii, where no less than twelve jets are associated with at least nine statues.¹⁷⁶

The garden with its plants sometimes yielded so many water displays that the plantings were greatly reduced or even occasionally eliminated in favor of paintings of gardens. Such extreme artifice in garden design is illustrated in the first court of the House of Apollo in Pompeii (v1.7.23). In this elegant house, two low rectangular walls enclosed a space that occupied most of the center of a small courtyard behind the *tablinum* (Figure 1.32: Room 11 and detail). The inside wall is bordered by a contiguous series of low half-round and rectangular steps. Seven rectangular pillars may have supported double herms and marble vases reportedly found there. Or, these pillars could have supported a wooden fence, as Carlo Bonucci suggested at the time of the excavations between 1810 and 1840, when it was in a better state of preservation. The water emerged from a little square receptacle at the top of a pyramid-shaped fountain in the center of the space and then cascaded down marble steps, into the square basin at the foot of the pyramid. But we don't know exactly where the water flowed after: perhaps in the gutter around the courtyard? Only a few plants could have occupied the small space around the basin. Perhaps as a

Figure 1.32 House of Apollo, vi.7.23, Pompeii, plan, after Zanker 1998, 173, fig. 90.



result of such limited plantings a fictitious garden inhabited by peacocks, swans, and many other birds as well as a fishpond and a statue of Diana in a central semicircular exedra was painted on the back wall, alluding to a villa garden.¹⁷⁷ A similar garden painting is in the large peristyle of the villa of Cap Tizerine at Cherchel.¹⁷⁸

In other cases, fountains and *nymphaea* were backdrops to gardens, lending a focal point, as in the House of M. Lucretius, where a clever arrangement of sculptures appeared to enlarge the garden through enhancing the perspective.¹⁷⁹ The peristyle of the House of the Little Bull in Pompeii (v.1.3/7) is a forerunner to houses in which the back wall of the courtyard is ornamented simply with a *nymphaeum*, as at Antioch or Ostia.¹⁸⁰ The visual and theatrical qualities of gardens are well expressed by the *nymphaea* and successive terraces connected by water stairs pouring into a pool flanked by beds in the

so-called house of the Aviary at Carthage, which produced an elegant backdrop to be admired as though a stage or painting rather than a place to be entered.¹⁸¹

The decrease of plantings in favor of water displays is perhaps a logical response to designing cooling spaces in very hot climates. In Late Antiquity, in the House of Venus at Khenchela in Algeria the courtyard was completely defined by two parallel pools, with sculpted rims and water ladders.¹⁸² Fountains and basins take up most of the remaining space where water was either calm or turbulent – an obvious conceit of contrasts. At the House of the Hermaphrodite at Timgad, the whole peristyle courtyard was essentially a pool. In the House of the Fishing Scene at Bulla Regia, the entire court was taken over by interconnected basins. According to Yvon Thébert, a pergola (post holes have been recognized) may have covered much of the courtyard. If this were indeed

the case, then the environment must have been cool and inviting, with light piercing through the vegetation overhead and being reflected by the basins of water below.¹⁸³ It is reminiscent of painted pergolas decorating ceilings, which in some cases could have been reflected by shiny floors or even, on special occasions, if one may speculate, by a thin layer of water over the surface.

The Sunken Garden

Because of topographic constraints, practicality, or aesthetic choice, gardens were sometimes sunken, perhaps only as much as a foot or so below the pavement of the porticoes. A good, although not typical, example is at the House of the Golden Cupids (vi.16.7) in Pompeii, where, in front of the reception room, three steps descend from a Rhodian portico into the garden. At the Casa dell'Albergo, the largest house so far discovered (iii.19–18/1–2) in Herculaneum, one reached the garden by descending a single flight of steps in the middle of the northwest portico.¹⁸⁴ At the House of the Triumph of Neptune at Acholla (Figure 1.20) and in some houses at Thysdrus the garden surface is as much as two feet lower than the floor of the colonnades. Although aesthetic reasons may account for such gardens, sunken courtyards could have had the practical purpose of keeping heavy rainfall from flooding porticoes and adjoining rooms.

In some Pompeian houses topography or architecture required that the garden be at a lower level from its surroundings. In the House of Apollo (vi.7.23), for example, the large garden is surrounded

on three sides by terraces rising some 1.20 meters. In other cases, a sunken garden could be admired from promenades overlooking it, as in the Villa of Diomedes and the House of the Anchor (vi.10.7).¹⁸⁵ In Gaul, at the House of the Arbor on the side of the Puymin hill in Vaison-la-Romaine, a courtyard was enclosed on three sides by porticoes and on the fourth side by a rectangular pool with an apse. The garden court was at a lower level than the porticoes, which supported galleries on a second story from which views of not only the garden and pool but also the town and countryside beyond must have been magnificent.¹⁸⁶ The same desire to have the *domus* open onto the surrounding countryside occurs in the Domus de la Planchette at Alba-la-Romaine, which also had U-shaped porticoes with galleries overlooking a garden and elongated pool.¹⁸⁷

Houses with more than a single story may have had views of interior gardens as well as the landscape beyond, although destruction of the upper floors at most sites prevents us from knowing much about these spaces. For example, the House of the Lovers in Pompeii (i.10.10/11) had porticoes on a second floor above the peristyle from which the garden could have been admired.¹⁸⁸ Many upstairs rooms, especially *cenacula* or *loggia*, could have enjoyed this advantage, as in the House of the Wooden Fence at Herculaneum,¹⁸⁹ or the Pompeian Houses of the Moralist (iii.4.2/3)¹⁹⁰ and of Paquius Proculus (i.7.1).¹⁹¹ Examples outside Italy include the Trifolium House at Dougga¹⁹² and the House of the Fishing Scene at Althiburos.¹⁹³ In the House of the Ass in Djemila,¹⁹⁴ it was certainly from the second floor that one could best contemplate the

organization of the garden, half planted and half devoted to many pools of varied forms. In Late Antiquity, some of the *insulae* of Ostia, which were transformed into rich *domus*, must have offered veritable “green skylights,” as at the Domus della Fortuna Annonaria.¹⁹⁵ We may recall the famous scene in Ostia between Saint Augustine and his mother as they leaned against a window, certainly from an upper-story window, looking down onto a *domus* garden at Ostia.¹⁹⁶

The difference between the level of the garden and that of its surrounding architecture may be serendipitous, such as that in the House of Vesunna at Périgueux. The earliest presumed garden (970 m²), dating to the mid first century, was bordered on three sides by porticoes. At the end of the first century or the beginning of the second the fourth side of this court was closed, reducing the open space to only 760 square meters. By the middle of the second century the house was rebuilt on foundations that were more than one meter higher than the original courtyard, necessitating stairs to enter into a now sunken courtyard (Figure 1.27).

The wall surrounding the courtyard was decorated with an illusionistic garden painting: a red parapet with semi-circular exedras holding crater fountains alternating with herm statues, similar to that in the House of Romulus and Remus in Pompeii.¹⁹⁷ A low parapet enclosing a large rectangular area in the center of the courtyard was painted on the exterior with a frieze of fish against a dark red background. A large round pool with a central water jet coming from a circular stone basin may be a later addition within this enclosure, so it is not clear if it originally contained planting beds or

water. If the paintings of fish are relevant to the contents, then a pool is likely. Indeed, such central water elements are common in garden designs and this may have been the case here. Regardless, it is clear that this courtyard lent the impression of a large planting box rather than an extension of the porticoes and was designed to take advantage of the raised peristyle by enclosing a large central area that was best viewed from above.

Banquet Places in the Garden

Besides a place for leisure and quiet contemplation, a garden could also be a space for lively banquets.¹⁹⁸ Such convivial occasions required furnishings that were sometimes fixed structures in or near the garden. In luxurious houses at Pompeii were a number of permanent summer *triclinia* situated inside rooms facing gardens, as at the Praedia of Julia Felix or the House of the Golden Bracelet. But often the banquet was in the garden itself, where guests enjoyed at close hand the plantings, fountains, and decorative accoutrements.¹⁹⁹ In Pompeii, besides the usual arrangement of three couches in a U, there were such innovations as couches arranged symmetrically on either side of a *euripus*, as in the House of Octavius Quartio, or on either side of water stairs and a pool, as in the Pompeian house at v.3.11.²⁰⁰ For many *triclinia* or L-shaped *biclinia* one sees the care given to these structures, which were often shaded by pergolas.

Frequently, even among the smallest Pompeian houses, such as that of Acceptus and Eudoxia (Figure 1.11), a significant amount of space in the garden could be devoted to banqueting, either in the open

air or under a trellis. In these cases, the garden acted as another room of the house to such an extent that plantings sometimes took a secondary role to the couches. Thus, in the little garden of L. and M. Volusius Faustus (1.2.10), an L-shaped couch overlooked a large pool with fishpond ($5.40 \times 2.90 \times 0.55$ m deep) that occupied almost the entire open space. The only planting bed was along one wall painted with animals (quadrupeds and fishes), vegetation (flowers and plants), and two large decorative craters.²⁰¹

Couches of masonry tend to at least partially survive, but others made of perishable materials, particularly wood, are more difficult to identify. Nonetheless, vestiges of wooden couches and pergolas associated with pools have been recognized in several houses at Pompeii, such as in the House of Paquius Proculus²⁰² or the House of the Menander,²⁰³ and it is likely other houses had similar furnishings that have left no traces. In the House of the Sculptured Capitals (VII.4.57)²⁰⁴

indications for six supports of a pergola in the middle of the garden were recognized, but no traces of couches. Even so, it is likely this was used as a summer *triclinium*, perhaps with temporary wooden couches. P. Soprano considered an open spot in the garden of a little Pompeian house (1.4.22),²⁰⁵ first recorded by G. Fiorelli, as a location where furniture could have been arranged for banqueting.²⁰⁶

Outside the Vesuvian area evidence is far less abundant, though in recent years increasing attention has been given to recording structures in gardens. In Gaul, thanks to excavations at Saint-Romain-en-Gal, we now have at just this one site three open-air masonry banqueting places, in the House of the Ocean Gods around a pool complex (Figure 1.33);²⁰⁷ the House of the Columns in the center of the garden (Figure 1.34);²⁰⁸ and the House of the Atrium in Vienne (“quartier des Nymphéas”) in a little lateral garden.²⁰⁹ The principle is the same in all three, but each differs from the others



Figure 1.33 House of the Ocean Gods, Saint-Romain-en-Gal.

Figure 1.34 House of the Columns, Saint-Romain-en-Gal, summer *triclinium*.



in conception. In the first example the guests were placed near the ground, on low couches around the basin; the second put them on couches arranged in a typical π -shaped *triclinium* in front of a *nymphaeum*, as in the House of Neptune and Amphitrite at Herculaneum.²¹⁰ The shape of the third, from around the end of the second century or beginning of the third, is between the classical pi-shape and the round *stibadium* with a semicircular fountain in the center.²¹¹ A *stibadium* in masonry with a fountain in the center was in an outdoor space of the House of the Etui d'or in Autun. We don't know the precise environment of this banquet installation, which perhaps was in a garden.²¹²

Physical evidence in the form of couches and pergolas is scarce in Gaul but even more so in Spain and Africa. The only example from Spain is a *stibadium* near a pool with interior lobes, in the peristyle of the House de la Cañada Honda dating from the second century (Figure 1.35).²¹³

In Africa, where the climate is certainly appropriate for outdoor dining, fixed exterior dining structures have not been identified in the gardens of private houses. Several funeral *stibadia*, dating from Late Antiquity, have been found, as in the necropolis at Tipasa, with water flowing in front of the participants.²¹⁴ Some *stibadia* with fountains have been identified in urban contexts in Carthage, Cyrene, and Rome, as well as in villas in Spain or South Italy,²¹⁵ but they seem to have been, at least by the third century AD, indoors rather than in outdoor gardens.²¹⁶

FROM DESIRE TO ABANDONMENT

A garden was a vital space, particularly for the city dweller, but to own one was a privilege because of the competition for space within urban settings. After the layout of an urban area had been established and space allocated and built

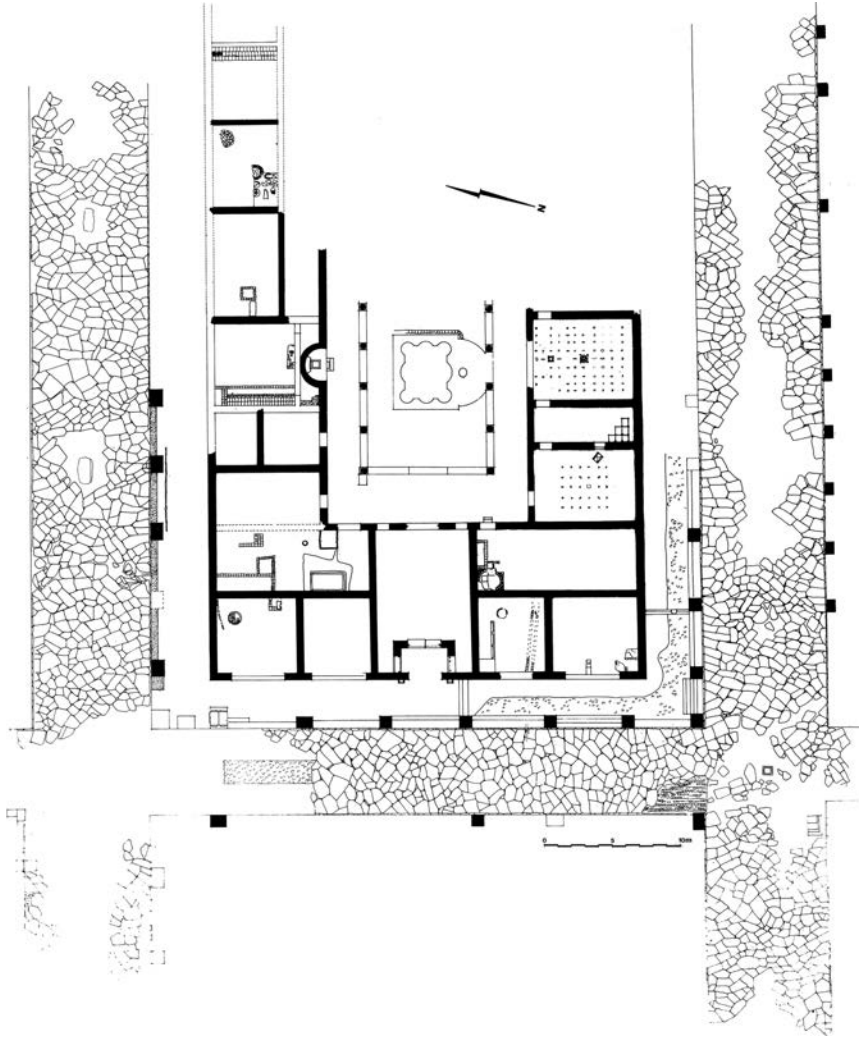


Figure 1.35 House de la Cañada Honda, Italica, Spain, plan, after Luzón 1982, 449, plan 2.

upon, it was costly to obtain land for a garden. Over the course of different proprietors, a garden could be created and even enlarged while later falling victim to economic hardships and urban pressures of encroachment. In the often-cramped *insulae* in the center of cities, the quest for light and air must have been intense; however, it is difficult to know whether garden spaces were originally incorporated into the planning of new colonies or in the expansion of new urban quarters. In some cases, such as Timgad, lots were simply too small to permit enough space for gardens.

The Quest for a Garden

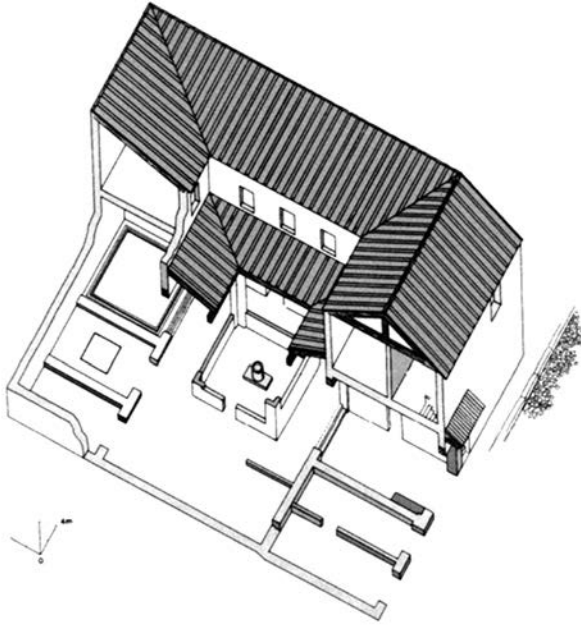
Several cities in southern Gaul have yielded information on the development of the *insulae* in the center of town. At Orange, Jean-Marc Mignon excavated 3,500 square meters of the Saint Florent quarter, uncovering two *insulae* separated by a street. He was able to follow their development from the Augustan period to the middle of the third century. The first phase is dated between 10 BC and AD 10; the second, which saw the quarter being rebuilt, dates to the Flavian period (AD

69–96).²¹⁷ Over the course of the first one hundred years the number of houses occupying a single site decreased from about fifteen to ten. The dimensions of the original houses averaged only between 200 and 250 square meters; the later ones were perhaps 50 percent larger. Each house originally had a courtyard from which surrounding rooms got light. In some cases, the court was planted as a garden but in others it was paved with tamped gravel. The later large parcels of land permitted more space to be allocated to courtyards; at least by the Flavian period these became gardens surrounded by porticoes. Others without porticoes could have had pools, usually located in front of reception rooms. Mignon emphasizes that social standing in the center of town was reflected in the increased allocation of open areas or semi-open areas such as porticoes.

Two contiguous properties show, in a rather short period of time, the development of houses at Orange. The House of the Polychrome Mosaic,²¹⁸ built in the middle of the first century, replaced earlier houses, permitting room for a garden of 182 square meters with a Rhodian peristyle and a pool with an apse. The House of the Mosaic with Meanders²¹⁹ was reconstructed at the end of the first or beginning of the second century AD (replacing two earlier houses) and remained occupied until AD 260 to 280. Its square peristyle is only partially exposed, but even though small (94 m²) the courtyard had a rectangular pool, perhaps with an apse (like its neighbor's basin).

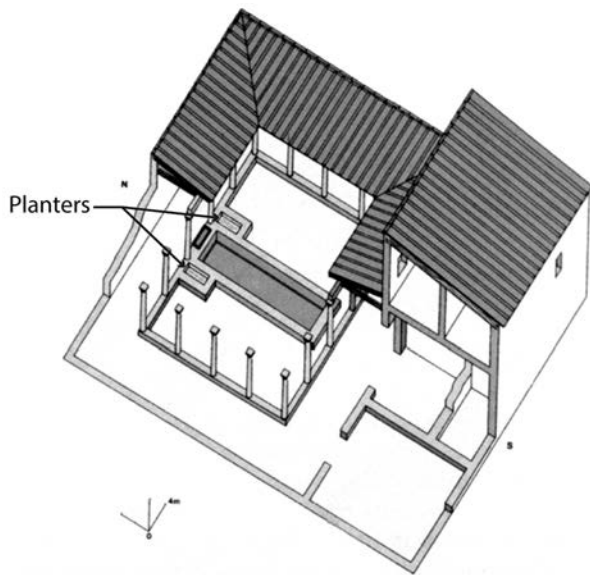
Likewise, in two quarters of Fréjus one can see not just how the size of the houses expanded but especially how the much-desired garden claimed more and more space. The House on Formigé

Square underwent three transformations in two centuries, beginning from the early Augustan period.²²⁰ The first obvious signs of construction on the site were structures of stone with clay mortar, but the precise plan of the building is unknown. In mid-Augustan times, around the years AD 10 to 15, a masonry house with a footprint of 462 square meters was constructed with a second story accessible from the street (Figure 1.36A: doorway and staircase at the right). The decoration reflects perhaps an increased social status: walls were covered with mural paintings of good quality and in one (and only one) room there was a black-and-white floor mosaic. It had a simple four-bilobed column courtyard that directed rainwater into a 20,000 to 25,000-liter cistern, below the *opus spicatum* pavement. An elegant *puteal* in the middle of the yard helped to draw water from it.²²¹ By the year 50 at the earliest, but certainly no later than the 60s, low walls closed the spaces between the columns on three sides (north, east, and west).²²² They are painted on both sides as a yellow lattice garden fence with red flowers on a dark ground (Figure 1.37A). The north wall in front of a reception room is lower in order to permit a view into the courtyard. On the fourth side (south) facing the vestibule a higher wall (1.40 m) protected the intimacy of the court from the street.²²³ The inside of this high wall was painted with a lattice fence, some 50 centimeters high, above which were shrubs and sprays of plants as well as birds against a yellow background (Figure 1.37B). In the center is a rectangular niche with a masonry pedestal, perhaps to support a statue, and nearby is a little conduit with traces of concretions suggesting the presence of a lead pipe, perhaps to feed a fountain.²²⁴



A

Figure 1.36A House on Formigé Square, Fréjus, axonometric reconstruction, early phase after Rivet et al. 2000, 209, fig. 370.



B

Figure 1.36B House on Formigé Square, Fréjus, axonometric reconstruction, later phase after Rivet et al. 2000, 209, fig. 371.

In a third phase, perhaps only a decade or more later, this central space was radically modified: planters, made with stone blocks, were positioned against the earlier low walls on three sides, destroying partially the lattice-work paintings (Figure 1.37C). Real plantings, therefore, were separated by bases, which could have supported decorative sculptures (although no statues have been recovered). At the same time, the center of the courtyard was converted into a pool (4.15×3.30 m) occupying the middle of the courtyard: a masonry quarter round for waterproofing was installed along the bottom of the low walls and a layer of concrete covered the surface of the planters. The *puteal*, having lost its original function, would have become a central ornament in the basin and certainly an overflow outlet.²²⁵

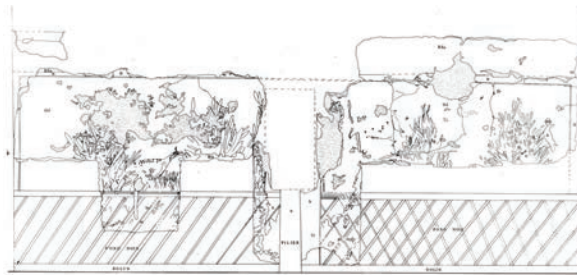
At the end of the first century, between AD 65 and 70, the house was destroyed by fire.²²⁶ A new house, more spacious and ambitious, was then built in the 80s, on top of about two meters of fill. We do not know the whole footprint of this house, but it is clear that the garden occupied a true peristyle (Figure 1.36B).²²⁷ The open area (121 m^2) was divided into two parts by a long, rectangular pool (8.90×3.15 m); a rectangular, marble-lined basin (0.84×0.35 m) with a water jet was inserted in one of its short sides.²²⁸ In a further phase, this canal-like pool was divided into two unequal parts. Near the portico, in a later period, were installed two quadrangular structures: one perhaps a planter box (it was discovered full of earth), the other a masonry support, with on its west side the negative print of a pipe, perhaps for a fountain statue.

This dwelling lasted at least until the end of the second century. It represents



A

Figure 1.37A House on Formigé Square, Fréjus, reconstructed view of peristyle, Barbet et al. 2000, cover image.



B

Figure 1.37B House on Formigé Square, Fréjus, garden fresco, Barbet et al. 2000, 13, fig. 10.



C

Figure 1.37C House on Formigé Square, Fréjus, masonry planters in the courtyard.

well the history that numerous homes in town centers must have gone through in the first two centuries: first the desire for a garden fulfilled primarily, if not exclusively, by wall paintings, then containers for real vegetation, and later larger and more elaborate new constructions and the creation of true peristyles.

Joining Several Gardens

The size of desired gardens depended on the dimensions of the lots established at the time of the layout of a city. After houses were built on the designated lots the only viable solution for an owner who wanted to enlarge his garden was to acquire neighboring parcels and join them with his own. This logical practice was not new to Imperial times; it can be seen already at Olynthus in the Hellenistic period. There, two houses of identical surface area (A V 6 and 8), which had small courtyards, were joined together to create a house with a large peristyle.²²⁹ Joining of houses, each with its own history and plan, could give rise to unusual forms, such as the House of the Ephebe (1.7.10–12/19) in Pompeii. An extreme case is the House of the Citharist (1.4.5/25), where three different *domus* were joined together to create one very large one with different gardens. Enlargements could come at the expense of other edifices without destroying them, as in the House of the Silver Bust at Vaison-la-Romaine, where the palaestra and the small public baths were enveloped in the new structure.

Away from the Vesuvian area examples of the taking over of contiguous properties are difficult to detect in the absence of widespread excavations in cities and in

view of the difficulties of determining the precise limits among neighboring houses. In Gaul, at Augustoritum (Limoges), a rich owner joined two houses, that of *Opus Quadratum* and that of the *Opus Sectile*.²³⁰ The new home had a central vestibule with a fountain and a pool with double apse in one of the gardens. At Aix-en-Provence, one notes the same phenomenon of a house with several gardens made by the combination of several smaller houses, as in the house found under the “Pasteur Parking Lot,” or the result of the combination of two *domus*: the house with the large *opus sectile* and the house with the semicircular bay.²³¹

Though the inhabitants of these houses must have been accustomed to the inconvenience of renovations, it is still surprising to see the radical changes in plans that, in the space of a few years, the owners endured to enlarge their gardens. In Vienne and Saint-Romain-en-Gal, one can follow the phases of such transformations: for example, how the House of the Fishpond was replaced by the House of Sucellus or especially in the impressive succession of improvements and expansions that turned the House of the Gilded Stones into the House of the Large Peristyle, and then into the House of the Vestibule with Columns, and finally into the grand House of the Ocean Gods.

When Space Became a Premium: the Garden Threatened

Ownership of a private garden in a town or city was surely always attractive, but urban and demographic pressures could make the cost in terms of space prohibitive. The desire to expand the living quarters of

a house could include not only, as we have seen, the taking over of contiguous properties, but also the refashioning of existing spaces. On the one hand, the traditional colonnaded courtyard succumbed, particularly in modest houses, to the need for enclosed spaces, resulting in smaller courtyards without columns and consequently less space devoted to gardens. On the other hand, the porticoed courtyard/garden continued in houses that could afford devoting space to it and remained, therefore, a distinctive feature of prestigious houses.

Reversals of fortune or speculation could lead to selling off attractive land. At Herculaneum, for example, the old Samnite House (v.1) around the middle of the first century AD had its garden taken over for the building of the House of the Large Portal.²³² Its imposing façade, in fact, disguises a simple house organized around a little courtyard decorated with garden paintings in order to replace the lost garden.²³³ The desire to gain space or the wish to modernize – or to restore the house, in the case of Pompeii after the earthquake of AD 62 – pressured owners to modify their gardens. Several Pompeian *domus* changed status and function, some becoming commercial establishments or apartment rentals. For example, the large garden of the House of L. Venanius Hypasaëus was converted probably into a drying area for the adjacent fullery.²³⁴ It kept, however, its elegant fountain, one of the most original in Pompeii and forerunner of other fountains with lobed forms.

Shortage of space led some owners to create new rooms by encroaching onto porticoes. The House of the Epigrams (v.1.18) was built around 40 BC after having incorporated part of a neighbor's

property.²³⁵ In the last third of the first century, perhaps after the earthquake of AD 62, most of the walls were repainted and the garden space was reconfigured. At the east corner a small room, perhaps for storage, with an upper story and staircase was created partially by enclosing two columns of the portico to make a wall with a small, high window giving light to this little room (Figure 1.38A). On this wall was painted a rich garden decor (with birds, peacocks, statues, and hunting scenes) and half-columns surrounded by foliage, a clever device to mask this makeshift wall and integrate it into the garden courtyard (Figure 1.38B). Elsewhere in the city are other examples of little rooms with a window looking out onto a garden, some perhaps for pleasure but others surely for utilitarian purposes.²³⁶

Changes in the organization of gardens in Pompeii are particularly evident from the end of the Neronian period into the Flavian age, that is, from the 60s to the destruction of the city in AD 79. The house of Sextus Pompeius Axiochus²³⁷ (vi.13.19/12) originally had a canonical layout of *atrium*, *tablinum*, and porticoed courtyard (Figure 1.39A). In the decades before AD 79 the spaces between the columns were walled, completely enclosing the courtyard save for a single opening. On the back wall was a scenographic painting, in the middle of which was a “paradeisos painting.”²³⁸ Above was a series of niches, two centrally located with triangular tympanum and two other symmetrical ones with an arcade on each side (Figure 1.39B). The niches were decorated with paintings that represented, on lunettes and background, cupids in various activities. Terracotta statuettes (one complete and another known only by fragments) occupied these



Figure 1.38A House of the Epigrams, v.1.18, Pompeii, after Carratelli et al. 1990–2003, vol. 3, 548, fig. 20.



Figure 1.38B House of the Epigrams, v.1.18, Pompeii, garden frescoes after Carratelli et al. 1990–2003, vol. 3, 547, fig. 18.

Figure 1.39A House of Sextus Pompeius Axiochus, vi.13.19/12, Pompeii, plan, after D'Auria 2011, fig. 146.

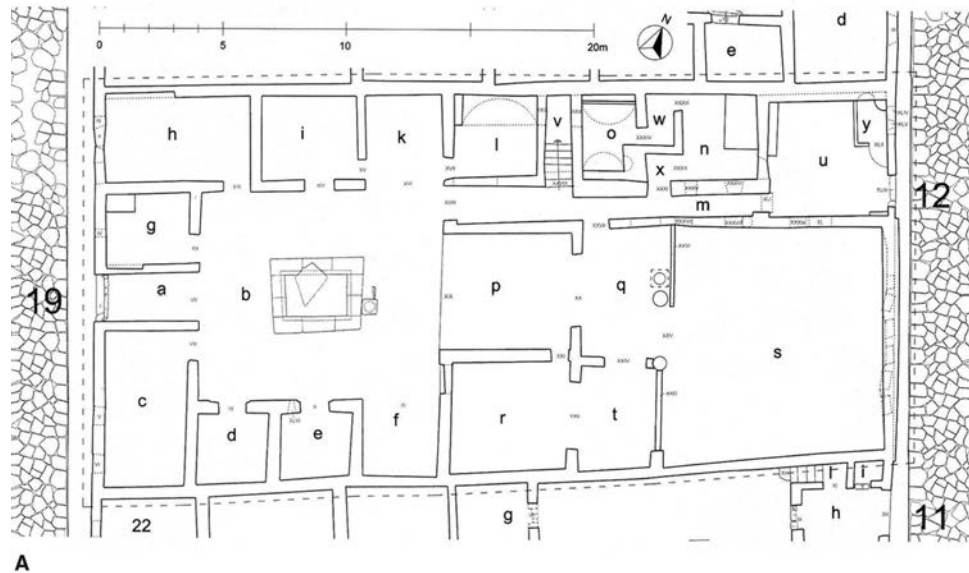


Figure 1.39B House of Sextus Pompeius Axiochus, vi.13.19/12, Pompeii, after Andreae and Kyrieleis 1975, fig. 171.



niches.²³⁹ It seems likely because of the remains of some small Ionic columns that there was a second-story loggia that lent views to the garden below.

Without the typical colonnade, the garden had gained perhaps a greater unobstructed environment; however, the portico as a transition between open and closed spaces was lost. The walls now

surrounding these gardens had to be pierced with windows in order for light to enter into corridors and rooms, which no longer took advantage of garden views.

The abandonment of a colonnaded courtyard as a setting for a garden illustrates the sometimes numerous transformations of open spaces in houses, according to the needs of the owners.²⁴⁰ In the house

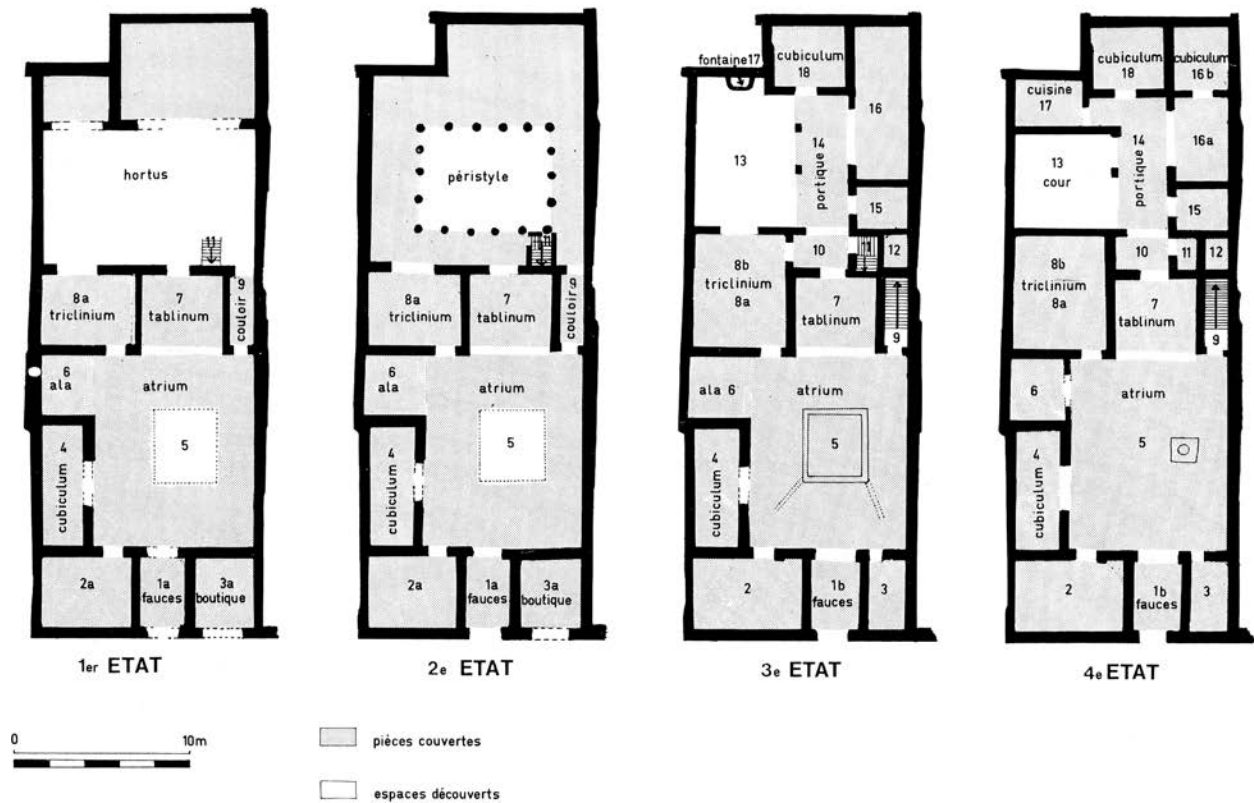


Figure 1.40 House of Underground Halls, Bolsena (Poggio Moscini), plans of four phases, after Barbet 1985, pl. IA.

of “Underground Halls” from Bolsena (Poggio Moscini), the original *hortus*, at the back of the lot, was created around 180 to 160 BC, and by the second half of that century a little peristyle was added (Figure 1.40). About a century later (40 to 30 BC: 3e état) the peristyle was removed in order to divide most of the courtyard into rooms (10, 15, 16, 18), served by a single portico. A pre-existing *triclinium* was enlarged and now was on axis to a fountain in the remaining small court. Finally, by at least the second century AD we can observe the end of the fountain and only a small court remaining (4e état).²⁴¹ The wish to gain habitable space and to have a reception room typical of the times led to the sacrifice of this garden in contrast to the final building of a peristyle as previously discussed at Fréjus in the House

on Formigé Square. It is clear that transformations and rebuildings of courtyards and gardens did not follow a single path throughout the Roman Empire, but were instead the result of different phenomena: local tastes, changes in social norms, necessity for more rooms, and increase of land, to name a few.

CONCLUSIONS

The gardens of the *domus*, along with the rather rare plantings in public spaces, in large measure shaped a part of the urban landscape, giving it open spaces and a different coloring and even scent according to the region. Each city and surrounding must have had its own physical and “botanical” identity and

ambience, as did the quarters within the city. Seneca vilified hanging gardens in Rome²⁴² and Pliny underlined the characteristic plebs' flowered balconies of the capital.²⁴³ Pompeii hid its *viridiaria* behind high walls, while towns like Vaison-la-Romaine, Saint-Romain-en-Gal, and Orange contained vast zones of gardens at the periphery or in spacious quarters where there was enough land.

We have seen gardens evolve and be transformed over the course of the first three centuries. But what happened to them in Late Antiquity? The situation varies according to the history of the province. Certain northern and western provinces, victims of the troubles and invasions of the third century, underwent a serious urban crisis. In the south of Gaul, the crisis led to the abandonment of some large *domus* with gardens, as at Aix-en-Provence, Fréjus, Vaison-la-Romaine, Saint-Romain-en-Gal, and Vienne. To be sure, for these urban centers we lack information on the crucial passage from the third and fourth centuries into Late Antiquity.²⁴⁴ The fate of pleasure gardens in this phase is, in general, not known. Important cities of this period, such as Arles, have furnished practically no information about the end of antiquity. Moreover, from old excavations, the late phases are for the most part the least well known because archaeologists neglected them, either for lack of technique at the time or because they were interested in only *la belle époque* of the early Empire, as at Vaison-la-Romaine. But it is evident that in a wide area of southeast Gaul there were in the third century two ruptures after several decades of prosperity. The first came after the Severan period (AD 193 to 235), with phases of destruction and abandonment of large residences.²⁴⁵

The second came in the 260s at a time of troubles known from historical texts. The example of the House of the Silver Bust at Vaison-la-Romaine is representative: silver sculpture was discovered in a portico of the peristyle, under the remnants of a burned roof that had fallen in place sometime in the third century.

Whatever its causes – accident, arson, or attack in time of troubles – one thing is clear: the area was never again frequented or rebuilt, for no one returned to retrieve the valuable art work. Though the houses of Vaison may show traces of occupancy in Late Antiquity, no new pavements were laid and no new wall paintings were made in the fourth century. In other parts of the empire where the political and military situation was different, as in Africa, the continuity seems evident. There, it is rather in the renovation of the decor that one can see the change in the houses. But the history of gardens in each province in Late Antiquity remains to be written.

The multiple forms that the garden in the Roman *domus* took in time and space correspond to the needs and expectations of their inhabitants. These people had a daily and seasonal experience of the gardens, which they had created and maintained. The incessant modifications and rearrangements only responded to the legitimate and normal desire for change from one generation to another. But the gardens also enjoyed a role as a place for reception and ceremony in the most impressive houses. For the visitors, the discovery of the garden became more and more refreshing as they entered into intimate acquaintance with their host. Modern photographs and plans of courtyards and replanted gardens do not tell the full story of these spaces. Though a

visit allows a practiced eye to restore the perspectives, the porticoes, the spaces, the play of water, and the vanished plants, the essence of what the garden could have offered to its ancient visitors often escapes us. Putting all the senses and all the culture of the visitor on alert, the garden created a very special experience of nature, recomposed in the bosom of the house, for the pleasure of the whole human being.

The garden is definitely the part of the *domus* that most strikes the imagination of one who wishes to understand the Roman soul. The expression of an art of living, the garden irresistibly attracts the visitor to Vaison-la-Romaine, Carthage,

or Conimbriga. Reconstituted *in situ* as in Pompeii or in a museum as at Augusta Raurica in Switzerland, or even in the state of poor ruins, the garden remains an evocative space, which inspires us to dream.

Improvement of our objective knowledge of the garden in the Roman house and in other spaces of Roman culture will require first of all a much more attentive analysis of open spaces in quest of traces of the plantings and of the types of plants that could have ornamented these gardens. Only the renewed study of the sites to find these traces can enrich our knowledge of the garden, by its very nature the most fragile element of a culture.

Chapter 2

THE ROMAN VILLA GARDEN

Kim J. Hartswick

The nature of a garden always reflects the culture of the people who created it.

(PAGÁN 2006, 12)

We are the children of our landscape; it dictates behaviour and even thought in the measure to which we are responsive to it.

(L. DURRELL, *JUSTINE* [E. P. DUTTON, 1961], 41)

IT IS NOT easy to render the precise meaning of the Roman villa garden because there was in antiquity no single definition of a villa or even of a garden.¹ “Villa” usually indicated a dwelling outside the city walls, and it is possible that historically the term originally meant only rural property in the *ager*, that is, landed property. Indeed, Pliny’s idealized conception of Rome’s identity was tied to the cultivated land of early *horti* in contrast to the luxury *horti* of his day. Supporting these views were the fifth-century BC laws of the “Twelve Tables” where *hortus* was used for “farm” (villa) and *heredium* (an hereditary estate) meant “garden.” By Pliny’s time (first century AD) people possessed, under the name of *horti*, “open countryside and villas actually within the city.”² Indeed, urban *horti* (in the plural) should not be confused with *hortus* (in the singular), which typically referred to a simple kitchen garden of a farmhouse.³ Likewise, according to Purcell, *in horto* (singular) meant “in a garden” but *in hortis* (plural) meant

"on a peri-urban estate."⁴ Such luxurious mansions and gardens, many of which lay immediately outside the walls of Rome, were so large in contrast to early *horti* that, according to Pliny, the very fields (*agri*) of early times now occupied less space than that of an emperor's bedroom.⁵

Agriculture, therefore, was intimately tied, at least initially, to the concept of the Roman villa to such an extent that in 37 BC the protagonists assembled by Varro compared (perhaps facetiously) the simple and conservative Villa Publica, in the urban Campus Martius, to Axius' richly decorated suburban villa, which, in contrast, was adapted for agriculture.⁶ The Villa Publica was comparable to a *villa urbana* (in the city) while the other, even though more pretentious, fulfilled the definition of a *villa rustica* (in the country).⁷ The conclusion reached by Varro was that any estate, regardless of location (and architecture), was a villa, if it obtained profits from sheep, birds, bees, or boars. On the other hand, "villa" was clearly a country term rather than a town phenomenon and the phrase *in villa* sometimes was used almost with the meaning "in the country."⁸

Contemporary with Varro's views are those of Vitruvius (writing 30–20 BC), who pointed out that domestic buildings in the city and in the country are comparable except that in the city *atria* are usually next to the entrances, whereas in the country peristyles are immediately at the entrances, with *atria* beyond. In Wallace-Hadrill's words, "to 'urbanise' the country is to stand the town on its head."⁹ That is, if *atria* were places of patronal power, Roman identity, and urban space, and peristyles were enclosures of luxury, Greek allusions, and rural areas, then

the suburban villa was clearly a reversal of the urban *domus*. It can be concluded that one's suburban villa, at least in the late Republican and early Imperial periods, had similarities to one's urban *domus* in terms of architectural design principles, but a clear difference in terms of social intercourse and general ambience. It is likely, therefore, that the decorative aspects of a suburban villa, including *horti*, would also be similar to, yet different from, their urban counterparts in the *domus*.

A villa, therefore, represented on the whole a life of luxury, ease, and quiet that was difficult, although not impossible, to obtain in an urban environment. The villa as a get-away from the urban landscape (the physical as well as the social and political) may not have applied as much to the ultra-luxurious and expansive Imperial villas within the city of Rome, but even these were not completely private because they were occasionally places of state functions. Thus, we hear of emperors, such as Vespasian, who desired to dwell not in the official imperial residence on the Palatine, but on the immediate outskirts of the city in a true suburban villa environment: the former gardens of Sallust. Even the first emperor, Augustus, who dwelt in relatively modest quarters on the Palatine, went to a suburban villa or to the gardens of Maecenas when he desired privacy.¹⁰

The Roman upper class was small in number and almost incestuous in familial ties so these suburban villas must have been considered the only places where privacy could be obtained. In an ironical twist, it has been claimed that most of the real business of the empire took place in such suburban villas that were noted for

their respite from such activities. This almost schizophrenic aspect of the suburban villa is summed up by Horace, who implied that a Roman did not know whether he wanted to be a town mouse or a country mouse; when in one place he longed to be in the other, admitting that he himself was fickle, for when in Rome he longed for Tibur, and at Tibur, Rome.¹¹ In 59 BC Cicero, perhaps facetiously, stated that his villa at Formiae was a public hall (basilica) rather than a private house (villa) because it was so crowded with town folk.¹² The libraries, art galleries, and gardens, therefore, of a villa must have been not only for the pleasure of the owner, but also (and perhaps most importantly) for that of the visitor. Indeed, Horace's proclamation that "invested wealth is displayed in handsome villas" indicates that villas were not meant exclusively for the enjoyment of the owner and his family.¹³

Like the term villa, *hortus* (pl. *horti*) could carry different definitions according to context or period. Originally, the word designated a vegetable garden. According to Pliny the early kings of Rome did their own gardening, whereas in his day (first century AD) people had "gardens" which were simply for pleasure.¹⁴ He traced this custom of "living in the country in the city" back to Athens and the philosopher Epicurus, "master of leisured ease." Pliny's comments about gardens are part of a tirade against unusual fruits and birds, vintage wines, cultivated asparagus, and snow in summers, among other exotica and luxuries.

At least by the beginning of the Empire, therefore, *horti* could mean pleasure gardens that were less concerned with agriculture and more focused on luxury and display. These later parcels of land were

usually situated outside the city, and from the first century BC they were always associated with villas. In this context, therefore, these *horti* are not merely gardens but refer to estates within which land was, at least partially, cultivated for pleasure. Thus, we may speak of a Roman villa garden as a distinct idea of a wealthy abode that attempted to combine the original conceptions of the *hortus* as a productive agricultural site with the pleasures and conveniences of a cultured, sophisticated lifestyle. This balancing act, which seems to have been successful at the beginnings of the Roman villa garden, soon tipped the scales in favor of luxury and extravagance.¹⁵

Horace deplored that in his day (late first century BC) great villas and their manicured and unproductive plantings were competing with former farmland. Instead of useful elms and olives, impractical planes and myrtle as well as laurel and flowerbeds were now planted within shady groves, all to the detriment of the productivity of the past.¹⁶ Likewise, Quintilian later (ca. AD 95) argued that farms (*funda*) possessing lilies, violets, anemones, planes, myrtles, and fountains rather than crops, vines, olives, and elms may be signs of wealth, but these only disguise the owners' vices rather than embellish their virtues.¹⁷ These views, although perhaps more conservative than most of their contemporaries, were part of a common literary theme of the late first century BC and the first century AD of pleasure villas as symbols of moral decay arising, at least partially, from rural depopulation and the selling of farmland beginning in the second century BC. Writers in the following century, however, did not much concern themselves with such issues,

implying that by that time extravagant villas were accepted as a way of life for the wealthy Roman elite.

Because one's social and political positions were so tied to land, ownership of property and dignified dwellings was of constant concern. According to Cicero the possessing of a fine *domus* was equated with the *dignitas* of Gnaeus Octavius, whose house on the Palatine persuaded voters to elect him consul.¹⁸ Given such associations with land and wealth, it is not surprising that Cicero was far from unique in having not only inherited properties (at Arpinum [Arpinum]) but also at least sixteen others that he purchased, including seven villas (at Antium, Cumae, Formiae, Frascati, Puteoli, Pompeii, and Tusculum) and nine houses (*diversoria*) for lodgings on his way to his other properties.¹⁹ It is informative that Cicero insisted his inherited villa was his real home because the Tullian family had lived there for generations. When challenged that he, in fact, lived in the capital city, Cicero countered by saying he had two homes, one that was his natural home (Arpinum), and the other designated by the state (Rome).²⁰ Family roots ran deep so that inherited property was perhaps the most cherished possession for any Roman. One's sense of place was intimately tied to the location of one's property, not only in terms, however, of ancestral holdings, but also through neighborhood and even landscape. This was clearly more than simple physical reality; it carried an enduring record of past generations of individuals who had worked and lived there, leaving behind something of themselves.²¹

These geographically scattered lands were not only for the owner's pleasure but also for revenues obtained from the

planting of crops and flowers or from the raising of animals and birds for market. Widely spaced properties allowed for different commodities and served as hedges against variable weather conditions. Diversity in landholdings was a key factor in maintaining economic stability, although one could be too extravagant, especially if land was "wasted" with the planting of pleasure gardens.

The earliest reference to a Roman villa garden is one owned by Publius Cornelius Scipione Africanus, who retired around 129 BC to his *horti* and villa at Liternum.²² Seneca the Younger visited this villa in Campania some 180 years later, describing it as constructed of large rectangular blocks, high walls, a defensive tower, a hidden cistern, and modest baths.²³ This fortress-like abode corresponds more to the *villa rustica* than to the *villa urbana*, and as such Scipio's gardens must have been farmland rather than luxury plantings.²⁴ Indeed, during the time of Seneca's visit around AD 50, contemporary wealthy Romans were living in substantially different types of villas from Scipio's high-walled compound with its narrow, smoke-blackened baths. Not only had the architecture changed from Scipio's day, but also the *horti* within and surrounding the villa took on the character of a planned, planted backdrop rather than the rustic, cultivated, and productive landscape of earlier Roman villa gardens. Scipio's country villa may have been the norm at least up to the first century BC, as revealed by the Younger Seneca's description of villas in Campania near Baiae, once owned by Marius, Pompey, and Caesar, located on the tops of mountains and looking more like military encampments than luxury mansions.²⁵ The Baiae area in Seneca's

day was filled with seaside pleasure palaces that must have lent a vastly different landscape than the older and physically separated mountain villas. Indeed, Strabo (ca. 64 BC–AD 25) remarked that the entire coastline of Campania looked like a single city.²⁶

These contiguous seaside villas, linked by terraces and pleasure gardens, have prompted the term “maritime façades,” as if the entire coast were a theatrical backdrop.²⁷ Performances indeed were played out within and in front of these Baiae villas in the form, according to Seneca, of lewd women, colorful painted barges, roses floating on lakes, and nocturnal brawls. Seneca deliberately contrasted these extravagant and frivolous activities and the villas and gardens that supported them with the sober and stark villas of older times as expressions of Imperial decadence and debauchery versus Republican moral qualities. Thus, a man’s home and its surroundings were considered a reflection of his personality as well as his character. Tiberius’ grand villa on Capri with its solitude and dramatic setting may be one such example.²⁸ A common literary theme was that greatness and simplicity dwelled together. Although warnings, moral teachings, and satires were written against luxury homes and villas, such deprecations could not stop their popularity for the aristocratic and wealthy Roman, and the plantings that surrounded such dwellings were an important and necessary part of this lifestyle.

Although the transition of the villa garden from the cultivated and practical to the cultured and pretentious may have begun during the Roman military conquests of the Greek Hellenistic world in the second century BC, true pleasure gardens were not

formed until at least a century later. For example, Lucius Licinius Lucullus (117–56 BC) possessed, among others, a sumptuous villa at Baiae, where he cut through a mountain in order to supply his *piscina* with salt water at a cost probably exceeding that of the entire villa. Pompey, mocking such extravagance, called Lucullus a “Xerxes in a toga,” alluding to a tunnel cut into Mount Athos by the Persian king.²⁹

Presumably not to be outdone, Quintus Hortensius Hortalus, a contemporary of Lucullus, had a crew of fishermen employed to capture fish to feed his fishpond.³⁰ He is also said to have been the first to introduce roasted peacock at his banquets, and to dress some of his slaves as Orpheus to stand guard of his animals in his game preserve during a banquet. Lucullus and Hortensius represent the ruling elite of the first century BC in which their extravagant lifestyles and expenditures of fortunes for ephemeral pleasures were legend.

Although Lucullus’ and Hortensius’ properties were extravagant, they could not compete with the later Imperial properties, especially beginning in the Neronian period when for the first time Romans feared that the whole city was being transformed into a single grand villa garden.³¹ The architecture of Nero’s Domus Aurea, with its pavilions, fountains, porticoes, pools of water, and landscaped plantings, must have reflected contemporary luxury villas outside the city. It was not, therefore, so much the extravagance of this villa garden *per se*, but its location within the heart of the city that angered the Roman populace. In spite of the failure of Nero’s Domus Aurea, which began to be dismantled after his death, the Roman passion for luxury gardens

did not subside. For example, Martial, in the age of Domitian, ridiculed how some wealthy people sacrificed essential parts of their abodes, such as dining rooms and bedrooms, for collections of trees, paths, and fountains.³² The prerogative for the wealthy class to have extravagant homes and gardens continued in Rome at least up to the fifth century, as attested by a fragment of the fifth-century historian Olimpiodoros of Thebes that refers to the great patrician estates in Rome as possessing all those things found in a small city – a hippodrome, forums, temples, fountains, and various baths.³³ Although pleasure gardens are not specifically named, they must be assumed given the architectural features of these late estates, which almost demand luxurious planted surroundings. Perhaps these luxury gardens were such an integral part of the properties that it was not necessary to mention them.

Only within this context of excess can the villa gardens, beginning in the late Republican period, be understood. The plantings within such a context had to be equally extravagant as the other parts of the villa. Virtually no expense was spared for villa gardens, not just in the plantings themselves and their care, but especially in the watering that these gardens demanded. It is not surprising, therefore, that the best villas had a ready source of water to supply the gardens as well as the baths, both of which grew sometimes to enormous spaces.³⁴

Pliny laments that, although his Laurentine villa had many amenities, it lacked water.³⁵ He would have been envious, therefore, of the villa of Manilius Vopiscus that was built on either side of the Anio in such a manner that the summer heat was reduced because of the nearness

of the river.³⁶ It is clear that Manilius' villa must have included extravagant gardens, but Statius draws our attention not to these planted, formal gardens, but to the natural landscape that has achieved, ironically, a certain degree of artifice. Indeed, if a general concept of the Roman villa garden, regardless of its location or of its layout, is sought, it is perhaps in the play on nature and artifice that we may discover its universal theme.

The harnessing of nature, in all its forms, was extolled by Statius, who praised aqueducts and the manipulation of fire for the comfort of man. Likewise, unusual foods and marbles could be obtained from all over the world to be used for the gastronomic and visual pleasures of the wealthy villa owner. And, in particular, the emperor's control of nature in the form, for example, of having delicacies at his bidding regardless of the season was the manifestation of his power.³⁷ It is not surprising that luxury gardens shared in such control over nature so that plantings were strictly laid out and tended in order to permit the most pleasing views from porticoes, windows, balconies, and towers. According to Cicero it was man's prerogative to organize nature.³⁸ But things could go too far, such as, according to Pliny, the breeding of dwarf cultivars and the retarding of growth to produce topiary, which was equated with abortion, or, according to Seneca the Younger, the forcing of roses, which was as perverse as transvestism.³⁹

There was undoubtedly a reciprocal relationship between gardens and architecture that cannot be overestimated. As architecture defined the boundaries of perhaps all Roman villa gardens, such as at Pliny's Laurentine villa where

“the whole garden (was) enclosed by a dry-stone wall which (was) hidden from sight by a box hedge planted in tiers,” so garden plantings and their sculptural displays reflected and responded to the architecture of which they were so intimately tied.⁴⁰ Landscapes beyond the boundaries of the villa garden could be appreciated for their visual charm, but it was not necessary or perhaps even desirable to experience them first hand when retreating to one’s country estate.⁴¹ For example, Pollius Felix’s country retreat was praised for combining the charms of nature with the comforts of the city, and Pliny described his Laurentine villa gardens in the context of visual pleasure to be enjoyed from a distance.⁴² It is almost a super-natural world in which nature is tamed, both physically and visually, in order to be at the beck and call of man. Even the seasons were manipulated, according to the elder Seneca, who remarked disparagingly that rooms opening onto gardens were unnaturally cool in summer and warm in winter, as were such rooms in Violentilla’s villa, mentioned by Statius.⁴³

These paradisiacal landscapes, gardens, and rooms were part of the concepts of *amoenitas*, *salubritas*, and *otium* – places where the wealthy could enjoy a respite from the crowded, unhealthy, and busy city for a life of ease, health, and contemplation. Originally tied to *amoenitas* (a concept in literature as a place pleasing to god and man) was the idea of sacred landscapes with which early villa gardens were endowed.⁴⁴ Being under divine protection because of the proximity of mythological beings or sacred places, these Roman landscapes were direct descendants of the Hellenistic tradition of the awe-inspiring nature of landscape as revealed perhaps

by Vitruvius.⁴⁵ Thus, Pliny spoke of the presence of statues of satyrs in a garden as part of its religious ambience and of their powers against the evil eye (Figure 2.1). Yet, Plautus, according to Pliny, considered Venus to be the patroness of gardens (Figure 2.2).⁴⁶ It has been argued that after the time of Vitruvius, however, such sacral landscapes were secularized and cultivated to such an extent that they lost their Hellenistic character.⁴⁷ Indeed, by the second or third century AD, the sophist Alciphron wrote that visitors to a garden, seeing statues of nymphs and Pan, did not feel any religious sentiment, but instead reveled in the sensual atmosphere of what they saw as an erotic space.⁴⁸ Pliny the Younger’s “topiary works” and the description of his Tuscan landscape as resembling a painting, as well as the



Figure 2.1 Hermaphrodite and satyr in Villa of Poppaea, Oplontis.



Figure 2.2 Venus, patroness of gardens, Pompeii: I.11.6.

contemporary use of *locus amoenus* (pleasant place) in Roman poetry may reflect a shift away from the idea of natural, sacred landscapes to those that are contrived and manipulated by man.⁴⁹ According to Lise Bek, “[t]here can be little doubt that this change was brought about by a historically and geographically conditioned development away from Greek ideas towards a more Roman lifestyle.”⁵⁰

As *amoenitas* can be related to the idea of location, so too *otium* has been tied to the physical realities of place.⁵¹ This concept in Roman landscape architecture of evoking another place was imbedded in the Roman phrase *ars topiaria* (place art). Indeed, memory as place is a concept clearly pointed out by Aristotle’s method of recalling lists of items, rules, etc. in any order by putting mental arguments in

numbered *topoi* (places); hence the English “topics.”⁵² Later, Roman mnemonic *topoi* became actual settings and buildings that could be recalled to effectively remember various kinds of information in a specific order.⁵³ It is not surprising, therefore, that the art of topiary was a Roman invention, according to Pliny the Younger, of Gaius Matius during the time of Augustus.⁵⁴ The *topiarius* (essentially the landscape gardener) could carefully cut hedges in the shapes of animals, landscapes, as well as entire scenes of war.⁵⁵ The Younger Pliny’s Tuscan estate even had box shrubs shaped into letters to spell out not only the proprietor’s name, but also that of his gardener.⁵⁶

Such clever trimmings, however, were only a small part of the works of the *topiarius*, who dealt with all kinds of ornamental plantings, called *viridia*. These “green things” were located in a *viridarium* that was always planted and trimmed in strict geometric designs, so that nature was shaped as an extension of architectural space. For example, Gordian is said to have envisioned building a *viridarium* in the Campus Martius planted with laurel, myrtle, and box trees enclosed by parallel porticoes 1,000 feet long and with a mosaic of equal length in the middle, flanked by short columns with statuettes.⁵⁷ It is clear that *viridia*, architecture, and decorative displays were not considered separate from each other but equal partners in the creation of an outdoor environment.

The concept of the Roman villa garden as the evocation of another place had a precedent in the famous hanging gardens of Babylon. According to a third-century BC writer, Berossus, King Nebuchadnezzar had these built in the early sixth century BC to cheer up his homesick wife, Amytis, daughter of the king of the Medes, whose

land was rugged, mountainous, and green.⁵⁸ It was not unusual, therefore, that a variety of ancient names had been given to parts of Roman garden estates and to their landscape views. According to Pliny, Cicero had a villa at Puteoli, famous for its portico and park, which he named Academy after Plato's famous school in Athens, which Cicero had attended.⁵⁹ Likewise, at Tusculum one part of his villa was called Academy, and another higher up was called Lyceum.⁶⁰ Atticus had in the park of his country estate in Epirus an Amaltheum, a sanctuary dedicated to the nymphs who nourished Zeus, the original of which may have been still in existence on Crete. Atticus' Amaltheum was shaded by plane trees and apparently watered from the Thyamis, a river that empties into the sea opposite Corfu. Cicero wished to have an Amaltheum in his own gardens in Italy and asked his friend for literature on the subject.⁶¹ That such place names had a long tradition is recognized by Gelon, tyrant in Acragas, Sicily, who had his own Amaltheum and from which Atticus may have gotten the idea for his.⁶² Regardless, it is likely that Cicero's Amaltheum was not a direct copy of either Atticus' or even the original, but a combination of elements – plane trees and water – that could evoke the sense of another place, similar to the literary device of *ekphrasis*, which attempts through words to produce the illusion of bringing objects before the eyes of readers and listeners.⁶³ As Pagán points out, “gardens break down the conceptual boundary between the conscious and the unconscious.”⁶⁴ Brutus identified parts of his villa gardens with Spartan landmarks, such as a water feature called a *Eurotas*, that consciously and unconsciously associated him specifically with the virtues of

ancient Laconian military honor and, in general, with Stoic values.⁶⁵

Artificial canals could be called “Nile” (Cicero's brother, Quintus, gave this name to his), and Cicero's villa at Arpinum had the rushing stream of the Fibrenus that flowed around a small island, forming a delta before emptying into the River Liris.⁶⁶ On this island Cicero made a *palaestra* – presumably a garden with shade trees and seats. It could have been to recall the *Platanistas* at Sparta around which a so-called *Euripus* flowed. Indeed, the term *euripus*, although deriving from a specific body of water (the strait between Euboea and Attica or else the Canopus canal at Alexandria), could be used generically for any long channel of water.⁶⁷ Such naming of artificial bodies of water occurred earlier in the palace at Alexandria in which a canal was called *Maiandros*, perhaps to evoke the Maeander, a river in Caria.⁶⁸

Besides the natural surroundings possessing Greek names, spaces in Roman villas, according to Varro, also could be given Greek terms such as *procoeton* (antichamber), *palaestra*, *apodyterion* (dressing room), *peristylon*, *orniton* (aviary), *peripteron*, and *oporotheke* (fruit cellar) – some of which were the antithesis of the rustic and productive parts of the villa estates.⁶⁹ Furthermore, some *domini* (owners) were even called *Attici*, *Deliaci*, and *Syri*.⁷⁰

But the naming of a place need not be necessary to evoke another location because Cicero described how strolling in a grove of planes belonging to Crassus reminded him that Socrates had enjoyed such cooling shade.⁷¹ A difference was, however, that Crassus had benches, whereas the Greek philosopher had to sit on the grass. Thus, Cicero was carried off



Figure 2.3 House of the Silver Wedding, v.2.1, Pompeii, Rhodian peristyle.

to a faraway place by a grove of trees and its shade rather than by any specific architectural space that he conceded was different from, and more accommodating than, the original. Even Pliny's own *gymnasion* and his Academy must have looked very different from their Greek counterparts; yet, the designations in Greek must have evoked the sense of the original in spite of their Roman forms. Similarly, such deliberate or unintentional associations with Greek culture must also be kept in mind for so-called Roman copies of Greek sculptures, many of which may not be direct copies at all but instead are simply evocations of Greek styles.

It may be surprising that, for all the symbolic and literary ties to the Greek world, there are no definitive precedents in the East, including Hellenistic palaces, for the architecture of a Roman villa and its gardens.⁷² Nielsen and others argue that Hellenistic palaces likely influenced Roman villas in Italy, but Coarelli and Wallace-Hadrill, for example, believe the inspiration came primarily from Roman

religious or public buildings.⁷³ Excavations north of Rome near the Via Flaminia suggest that Etruscan palaces may have been the inspiration for the early Republican villas, which by the end of the third century BC had *atria*.⁷⁴ Even earlier *atria* have been proposed for at least two houses (one in Rome, the other at Roselle, near modern Grosseto in Tuscany) dating to the sixth century BC, which could be precursors to those near the Via Flaminia.⁷⁵ Yet, the most significant alteration of the Roman aristocratic dwelling was the addition of a peristyle in the distinctive form known, according to Vitruvius, as Rhodian (one colonnade having taller columns than the others), for example at the House of the Silver Wedding in Pompeii (Figure 2.3).⁷⁶

The argument of origins centers around the *atrium* and the *peristylum*: the former presumably a Roman, the latter a Greek invention.⁷⁷ The peristyle courtyard in Roman houses and villas was not adapted in Roman Italy until probably the second century BC, although houses with small peristyles existed in the west long before.

In Sicily, for example, a house (with a “Greek” pebble mosaic) in the Punic city of Motya had a peristyle perhaps as early as the fifth century BC (although recent studies have dated it to the second half of the fourth century), and there was a similar use of columns about this same time in houses along the North African coast at Carthage.⁷⁸ But, as Daniels points out: “Such porticoes, traditionally assumed to have been Greek in origin, are uncommon in the Greek world at this time.”⁷⁹ Certainly by the fourth century Greek houses had courtyards encircled by colonnades (i.e., Areopagos in Athens; House of the Mosaics, Eretria; House of Dionysos, Pella) so in the following century when Romans began to confront directly Greek cities, peristyles were common features in the homes of wealthy Greeks.⁸⁰ The question, therefore, is not so much the Greek origin of the peristyle courtyard but whether the early Greek courtyard was planted with a formal garden. For example, the early fourth-century House of the Mosaics at Eretria had a peristyle courtyard that was paved with a mosaic and a secondary court (without columns) that was believed by its excavators to have been a garden,⁸¹ such arrangements may have been typical of peristyle houses in the Greek world.⁸²

Theories of the origins of the Roman *atrium* and peristyle are not, however, mutually exclusive because at least some imperial villa gardens, particularly those in or near the city of Rome, may have been influenced more by Hellenistic palaces than were non-imperial Roman villa gardens outside the capital. The description by Philo of the Lamian gardens in Rome, where in AD 40 Caligula entertained Jewish ambassadors, reveals numerous pavilions

and lavish buildings scattered within a, presumably, landscaped environment.⁸³ Such disposition of buildings appears to have been influenced by Eastern palaces such as those in Persia, where *paradeisoi* contained numerous buildings within a park-like setting.⁸⁴ Likewise, the palace of Alexandria spanned an enormous area and contained park-like surroundings with pavilions, water displays, peristyles, banqueting halls, and sacred and “public” buildings.⁸⁵ It is possible that Caligula, who perhaps had a preference for such exotic landscapes, took his Eastern guests to this villa garden in Rome because it evoked Hellenistic kingship.

On the other hand, it is noteworthy that Alexander as well as the Seleucids, who lived in the Summer Palace on Babil Hill in Babylon (a Neo-Babylonian palace that had been later occupied by Persians), had peristyles added to the existing courts.⁸⁶ Thus, a Greek architectural element – the enclosed colonnaded courtyard – was introduced into traditional open courts in Babylon in order to lend them the appearance of a typical Macedonian palace. Likewise, by the late third century BC houses in North Africa began to employ central courtyards surrounded by columns perhaps in order to associate the wealthy Carthaginians with the mainstream of the Hellenistic world.⁸⁷ What the Romans inherited from their Hellenistic predecessors, therefore, was already a combination of Eastern landscapes, such as the *paradeisoi*, as well as the Greek peristyle court (beginning in the second century BC), which itself may have been inspired by public colonnaded walkways or building façades. In other words, it is difficult to accept single origins for the Roman villa, peristyle, and garden because examples of

formal and informal gardens and architectural features related to personal living environments were varied and numerous according to location and cultural preferences. In general, Romans had the enviable ability to adapt and absorb into their own culture a broad spectrum of foreign elements to the extent that it is usually impossible to sort out direct influences on a single Roman creation. It is all the more difficult to determine specific origins of Roman villa gardens because they are not well recorded archaeologically and discussions of them in contemporary literature are not always reliable or clear.

Although Hellenistic origins are enticing for certain architectural features, such as enclosed porticoes, the Roman gardens planted within these porticoes may have developed independently.⁸⁸ Nielsen argues early palaces in Egypt, Persia, and Sicily likely had gardens that directly or indirectly influenced the Roman villa garden. Yet, formal gardens within peristyles, the quintessential Roman architectural garden enclosure, are not archaeologically recorded in these Hellenistic palaces. On the contrary, the courtyards enclosed by Hellenistic porticoes may have always been paved or at least left substantially unplanted as a place of outdoor activity, such as weaving, which needed sunlight and space.⁸⁹ Even courtyards in Roman villas were not always planted and sometimes were, at least partially, paved.

The Roman villa garden enclosed by a colonnaded architectural surround appears to have been a Roman idea, expressing the peristyle as a place of leisure and reflection rather than work and industry.⁹⁰ As such, the peristyle garden – one element of the Roman villa garden – likely was influenced by Greek schools

such as Plato's Academy, which Pliny attempted to evoke in his own villa. That is, the peristyle within a Roman villa was meant for natural strolling (rather than public walking)⁹¹ and private conversation (rather than oratory); the gardens within must have enhanced the contemplative ambience of the enclosed space. The portico gave the visitor protection from the elements and at the same time permitted a view of an outdoor natural setting, albeit contrived, which physically and theoretically extended one's environment beyond the barriers of the colonnade, while limiting the extent of that view. According to Rhiannon Evans, "Roman gardens – in a sense all gardens – negotiate a nexus of contradictions, providing the natural, the living and the rural in a built, urban environment. The [peristyle] garden delivers the illusion of spontaneous growth within a fabricated frame."⁹²

The gardens that surrounded the villa functioned differently from the peristyle gardens.⁹³ These peripheral landscapes, as seen through windows and porticoes, could carry the viewer beyond the confines of the villa grounds to distant mountains or the sea. Such panoramas were essentially permanent or, at least, persistent, in contrast to the immediate landscape that appeared to be ever changing.⁹⁴ The contrast and dichotomy of tamed/ changing and wild/permanent must have been obvious and desirable, just as in the seventeenth-century Villa Borghese in Rome where "the 'pars urbana' was divided into enclosures and allotments that were rigidly symmetrical and created axial perspectives, while the 'pars rustica' – the 'country' or wild part – was left in a free and spontaneous form."⁹⁵ It is enlightening to point out that the Latin

verb *colere* means both “to cultivate” and “to worship,” which led Von Stackelberg to declare that “Romans experienced religious awe with cultivated landscape rather than with the grandeur of wilderness spaces.”⁹⁶

The juxtaposition of the man-made and natural is of interest to Pliny the Younger at his Tuscan villa, where a meadow beyond a *xystus* (likely a terraced formal garden) is “no less worth seeing for nature than that [*xystus*] is for art.”⁹⁷ In similar vein, Pliny’s Laurentine villa was noteworthy because of the variety of windows that gave different views of the surrounding landscape.⁹⁸ Earlier, Cicero was in agreement with the decision of his architect, Cyrus, regarding the size of the windows in his villa at Arpinum, which gave him dramatic views. The importance of windows and distant landscapes was emphasized by Cicero’s theories on the dimensions of the rectangular opening to the optimum view obtained.⁹⁹ For the same reason, although perhaps less scientific than Cicero, M. Marius had cut, apparently, a window through one of the walls of his villa in order to gain a panoramic view of the entire bay of Baiae.¹⁰⁰ Even if one did not live near the sea, it could be evoked by large artificial pools of water that lay outside the villa. At Pully, Switzerland, a rectangular pool was built beside the porticoed façade of the villa, perhaps within a formal garden, so that the view from this villa could have presented the illusion of the sea or some other natural body of water. Water need not even be present to lend its effect, for at Pliny’s Tuscan villa the movement of closely planted beds of acanthus could recall ripples on the surfaces of pools of water.¹⁰¹

It has been suggested that at Tivoli there may have been more gardens on the periphery of the villas than interior peristyle gardens, specifically to take advantage of the spectacular views. The peristyle garden, by definition, had an architectural surround that may be at least partially preserved, but the peripheral gardens are less visible archaeologically, and therefore are not recognized by most observers. Terracing of properties suggests peripheral gardens, such as in a suburban villa in Geneva, Switzerland, but the precise plantings, if they existed, are difficult to determine. Indeed, the artificial terracing of property can transform a *villa rustica* into a villa garden, as occurred at Ventidius Bassus’ villa in Tivoli, and such terracing is a primary element that distinguishes luxury villas from working estates. It even has been suggested that the Roman penchant for terracing was due to the love of formal gardens featuring shallow-rooted plants that required irrigation and hence a nearly level watershed.¹⁰²

According to Statius the distant views that were achieved by placing the villa proper on terraced property could be given names from the actual landmarks as seen through the windows of a villa, or else names that evoked far-away places beyond the viewer’s sight, such as at the first-century AD Sorrentine villa of Pollius Felix.¹⁰³ These seemingly limitless gardens, as earlier gardens in the Hellenistic world, likely were always defined by walls (which may not have been seen from within the villa), as suggested by the etymological origins of *hortus* meaning “enclosure.”¹⁰⁴ Yet, the Roman gardens within these enclosures may have been different from their possible Hellenistic counterparts.

There is a general approach to the layout of Roman villa gardens in which box hedges or other green plantings were employed to create a natural enclosure in which flowerbeds were designed in balanced, although not necessarily symmetrical, designs. And, other plantings – for example, boxwood hedges, laurel, juniper, holm oak, and umbrella pine – were, as in later eighteenth- and nineteenth-century Roman gardens, “well-suited to the needs of symmetry and the widespread use of sculptural decoration.”¹⁰⁵ Hadrian’s Villa at Tivoli or the gardens on the Palatine are fine examples of villa garden design in Imperial residences. Other villa gardens geographically removed from the capital were, not surprisingly, less extravagant in terms of the number of plantings and their layout than Imperial residences. For example, a fourth-century AD villa at Frocester in Britain had a front courtyard with a wide limestone path flanked by several planting beds (box?), but the remainder of the court likely was entirely graveled rather than planted. Regardless of the precise layout of the plantings, however limited, their inclusion transformed this simple courtyard into a pleasing space much as the estate of Atticus on the Quirinal, which was described by Cornelius Nepos, a contemporary, as beautiful not because of the house built long before by Tamphilus, but because of the landscaping.¹⁰⁶ Thus, even limited plantings in and around a house were thought sufficient to enhance a *domus* or villa. It was not, however, only as a pleasing natural component to one’s living space that plantings were valued, but also, as previously mentioned, as the evocation of a divine space.

The divine nature of the Roman villa garden could be manifest in perhaps most of its plantings, such as myrtle and laurel, but trees appear to have possessed special significance, even at times as surrogates for conquered peoples: for example, Vespasian’s and Titus’ triumphal procession had live balsam from Judaea, an act of displaying trees as war booty introduced by Pompey.¹⁰⁷ Groves of trees were, of course, only possible within the context of villas containing extensive land holdings, but trees could also be planted within peristyles, such as at Aristius Fuscus’ villa mentioned by Horace.¹⁰⁸ Even single trees, particularly those that were old and gnarled, could be admired, for they must have conveyed not only their own history of development but also the enduring history of past generations who had nurtured it, pruned its branches, picked its fruit, and even leaned against it.¹⁰⁹ A tree in the gardens of Atedius Melior was prized for its contorted shape, and Statius wrote a poetic story to explain its distortion.¹¹⁰ Part of the country villa of Manilius Vopiscus was built around an old tree that was taller than the roof.¹¹¹ Likewise, Martial commented on a leafy plane tree in the middle of a house in Córdoba that was planted by Julius Caesar and under which were fauns and nymphs.¹¹² The orator Q. Hortensius nourished his planes with wine rather than water and was so devoted to one tree he planted himself that during a legal case he begged Cicero to change speaking places with him so he might return home to care for it.¹¹³ The Elder Seneca reported a controversy in which a rich owner was disturbed by the presence of a plane tree on his modest neighbor’s property.¹¹⁴ The poor man refused to have it cut down so the rich man set it ablaze, destroying as

well the poor man's house. In Rome one could only recover damages equal to the value of the property if it were determined the damage was unintentional. Four times the amount, however, could be gained for intentional damage. The poor man argued for the increased amount because he declared that a tree is an integral part of one's property, intimately tied to the dwelling itself.¹¹⁵

Trees could increase property value even in such luxurious houses as Lucius Crassus' that had six columns of Hymettian marble and was famous enough to be called Venus Palatina. When Domitius Ahenobarbus wanted to buy this property he had to offer more because of six majestic trees whose massive branches produced ample shade – an expression of their size and vitality, just as were a man's shadow or even his footprints.¹¹⁶ They still existed as integral parts of the estate up to the city fire of AD 68.¹¹⁷ Value of trees could be so great that when Gabinius looted Cicero's Tusculan villa he carried off not only the art and furniture, but also the trees. The passion for trees is evidenced by Valerius Asiaticus: when forced to commit suicide by Messalina (who desired his property) Valerius attempted to designate the place for his funeral pyre so that the flames would not spoil any of his old trees.¹¹⁸

Valerius' enthusiasm for his trees may have been extreme, but it is clear that, in general, trees were highly prized not only as divine symbols, but also as architectural borders. Plane and cypress trees as well as box hedges and ivy rather than real architectural elements defined

Pliny's hippodrome, and trees could be planted to define properties in order, according to Varro, to avoid quarreling with the neighbors and lawsuits over boundaries.¹¹⁹ The reliance on trees and shrubs as substitutes for architectural elements and the entwining of vines around a real column as though a tree trunk are conceits that seem embedded in the psychological and cultural norms of the villa garden as a place of mystery and ambiguity. Indeed, Caligula had built a dining room for fifteen guests and their servants in a plane tree at his villa at Velitrae (Velletri), a combination of luxurious architecture and natural elements that is a hallmark of ancient garden design.¹²⁰

Regardless of the precise plantings and layout of Roman villa gardens, they all shared a desire to transform nature not only for aesthetic pleasure, but perhaps more importantly for a supernatural experience, however contrived it might have been. Diligence, hard work, and financial commitment, therefore, were imperatives for any good Roman villa garden to survive. Yet as Horace explained, nature will always be victorious however hard the attempt to tame it.¹²¹ Only one's imagination, therefore, could truly keep alive a garden and its plantings. Thus Quintus stated rightly that the description of an oak tree in Cicero's poem *Marius* would survive the ages, unlike the living oak on his estate in Arpinum.¹²² Memory, therefore, was what the Roman garden was meant to evoke and to which it ultimately owed its preservation.¹²³

Chapter 3

THE ARCHAEOLOGY OF GARDENS IN THE ROMAN VILLA

Elizabeth Macaulay-Lewis

THE EVOCATIVE, VIVID, and detailed descriptions of gardens, gardening, and landscapes by some ancient authors influence, if not dominate, our modern image of the Roman villa and its gardens.¹ As a result, many scholarly studies of villas and their gardens have tried to equate archaeological remains with written descriptions.² Rather than looking to the ancient written sources as the primary guide to understanding and interpreting Roman villa gardens, this essay focuses, instead, on the pertinent physical remains. Certainly, we cannot ignore the ancient sources, as they tell us much about Roman villa gardens; however, they are only a part of the jigsaw of evidence. We must consider the written accounts in concert with the botanical, horticultural, sculptural, hydraulic, and architectural evidence to understand the garden in the Roman villa as fully as possible. Together all this evidence enables us to understand the origin, function, decor, and ethos of gardens in villas and imperial estates throughout the empire; explore the process of designing and creating villa landscapes and gardens;³ and examine the significance of the garden in the Roman villa through space and time.

Ancient authors employed different terms, including *hortus*, *xystus*, and *viridarium*, to identify Roman gardens; however, their meanings are not always clear and are sometimes difficult to apply to actual garden sites.⁴ Thus, rather than ancient designations, whose

meanings may vary through space and time and do not have exact translations, it is more productive, I believe, to employ modern terminology. For the purposes of this essay, therefore, I propose the use of: “garden,” “landscape,” and “designed landscape.”

A Roman “garden” is a bounded space where plants, and often water features, were fundamental elements; it was typically enclosed by the architecture of a villa, house, or residence, or was closely associated with architecture.⁵ Generally, Roman gardens were productive or ornamental, and in many cases, both. The term “landscape” typically describes the larger area around a site; in the case of the Roman villa, the landscape was often the land in which the villa was set and over which the villa looked. The nature of the landscape could vary, from agricultural fields belonging to a villa to the distant hills or coastline visible from a villa. This landscape might not be manipulated or even controlled by a villa owner; however, it was still an important element of the setting of the Roman villa.⁶ A “designed landscape,” by contrast, is a natural space, defined and manipulated by man for a functional purpose or to create a specific effect or allusion.⁷ A designed landscape was not necessarily an enclosed garden, but rather was a large space, which may not have been bounded by architecture, although it typically included architectural elements. Designed landscapes not only used plants in their construction, but they also deployed other natural elements, such as water or caves, or manipulated the natural terrain to create an artificial, yet often a seemingly natural, environment. “Landscapes” and “designed landscapes,” which scholars might typically

call “parks,”⁸ can be seen as types of “gardens,” because they incorporate nature with architecture and human elements to create open-air environments.

Like many Roman cultural and artistic institutions, the villa garden had a complex origin and evolution. Archaeologically, “villa” denotes a rural settlement, which ranged from a simple farmstead, primarily focused on agricultural production, to a palatial residence in the country with every possible luxury.⁹ The villa of the Roman Republic began as a working farm tied to the Roman conception of the industrious farmer-soldier.¹⁰ So also were its earliest gardens, which began in a relatively humble form as productive parts of the villa environment.¹¹

The Villa Regina at Boscoreale, located near Pompeii, is a good, although relatively late, example which scholars call a *villa rustica*, a producing farmstead (Figure 3.1A; Figure 3.1B). Built in several phases beginning just after 80 BC, this villa was set in a vineyard, a type of productive garden, as traces of 300 root cavities of vines and 195 postholes attest. The root cavities of the vines ranged in dimension from 1 × 1 centimeters to 11 × 16 centimeters and were planted at a depth of between 7 and 66 centimeters. This variation in size and depth suggests that different species were present, and the small size of even the largest cavities indicates vines were most likely planted after the AD 62 earthquake. Sixteen other small cavities, possibly herbs, were also discovered around the villa itself. Because four of these cavities were on a small path, Jashemski assumed that it was no longer in use, perhaps because of the earthquake.¹²

The vineyard and planting of herbs at the Villa Regina at Boscoreale underscore

a number of fundamental elements of the garden of the late Republican *villa rustica*. The original, indigenous Roman villa garden was productive in nature, yielding crops for personal use and/or for commercial profit. The plantings of the Villa Regina suggest that the gardens of a *villa rustica* could take a number of forms—from a larger landscape, like the vineyard, to the smaller herb garden. Fundamentally, food or agricultural production was the main purpose of these early villa gardens.

The villa gardens of Roman Italy were dramatically transformed in the last two centuries BC. While producing gardens continued to be an essential aspect of the Roman villa until the end of the Empire, the second century BC saw increased Roman trade and military engagements with the East. This interaction brought the Romans into contact with the cultural, artistic, architectural, and horticultural traditions of the Hellenistic world, including the gymnasium and the Hellenistic palace, both of which had a profound effect on Roman architecture and gardens. The result was the transformation of the function and design of many Roman villa gardens and the advent of designed, non-utilitarian villa gardens that had specific cultural resonances and allusions.¹³ While the villa garden, like Rome itself, was transformed through this contact, it did not merely copy Hellenistic gardens, but interpreted and incorporated elements of Hellenistic gardens that suited Roman taste and sensibilities. In doing so, what it meant to be Roman and what was “Roman” about the Roman garden was also permanently altered.

The gymnasium was a fundamental cultural institution of the Greek and Hellenistic worlds. Here elite, young

men were educated in the arts of philosophy and rhetoric; they also received physical training. Architecturally, the gymnasium was organized around a colonnaded open space of beaten earth. Through their exposure to Greek culture and the Hellenistic world, elite Romans of the late Republic developed a strong interest not only in Greek philosophy but also in its architectural setting.¹⁴ These young aristocratic Romans were often sent to Athens to complete their education, and upon returning home, they transformed the philosophical disputes and training of the body associated with the gymnasium into elite leisure activities. To accommodate these pursuits, the Romans recreated the physical environment of Greek philosophy and the gymnasium by constructing gardens, groves, and landscapes, often set in colonnaded courtyards in their villas.¹⁵ Thus, the gardens and groves associated with the Hellenistic gymnasium and philosophical schools, as will become evident, were significant to the evolution of the Roman villa garden. The exact appearance of many of these philosophical schools remains unknown, but presumably they varied in size and shape. Likewise, the gymnasium was an institution whose physical form was as diverse as the kingdoms of the Hellenistic world.¹⁶ The idea of the gymnasium as a place of learning, perhaps, was more important to the Romans than a specific, codified physical form.

Gardens in Hellenistic palaces of kings and governors were also important in the development of Roman villa gardens of the late Republic. Nielsen identified three types of gardens in Hellenistic palaces: first, the expanded, fenced landscape

that surrounded the palace; second, the enclosed, often porticoed, garden, which was not architecturally tied to the palace; and third, the novel, porticoed courtyard garden contained within the palace.¹⁷ Each type of garden had a different function. The first was largely used for recreational purposes, which Nielsen identifies as a *paradeisos* or *alsos*, a subset of which was used for hunting.¹⁸ The second was more diverse in purpose and was probably a gymnasium-inspired space.¹⁹ Called an *alsos* or *kepos* by Nielsen, this type of garden was used for private dining, recreation, and other non-official purposes. Lastly, the courtyard garden, the spatial hub of the Hellenistic palace, was, as Nielsen observed, “radically different”; many rooms, often associated with dining, were located off these planted courtyards.²⁰ Nielsen’s use of the terms *paradeisos*, *alsos*, and *kepos* highlights the difficulties of using ancient terms to describe archaeological remains. For example, in her typology *alsos* identifies two types of spaces, making it an ambiguous label.

The identification of three different types of gardens suggests a key and fundamental point, also relevant to Roman villa gardens: gardens were not only conceived as enclosed, architecturally bounded spaces, but could also be larger grounds, landscaped and designed by humans. The heterogeneity of gardens and landscapes associated with Hellenistic palaces, like the palaces themselves, also suggests that the Hellenistic palace garden did not have a set form, but like the Roman garden, it evolved and varied through time and space.

The most famous of all Hellenistic palace gardens, although none of it is known archaeologically, is the Basileia

complex, started by Alexander the Great in Alexandria.²¹ The Basileia was endowed with a wealth of diverse gardens. According to Strabo,²² this complex included an *alsos*, which may have been park-like, with pavilions, as well as official and private buildings for various functions, and the Sema, or tomb, of Alexander and the Ptolemies.²³ The famous Museion, which had a library, portico, *exedra*, and dining hall, was also found here; it was probably a gymnasium-like structure with porticoed walks, *exedrae*, and rooms for strolling, sitting, and conversation. Additionally, there was also an actual gymnasium in the complex, which Strabo identified as the most beautiful building in Alexandria.²⁴ Other buildings, including temples and sanctuaries, were present there. The Basileia seems to have had at least two of the three garden types that Nielsen identified: the architecturally distinct enclosed garden (in the form of the gymnasium) and a larger designed landscape. While we do not know the design of the Basileia’s architecture or whether there were gardens within the complex, it seems likely that some plantings were integrated within the architecture of the palace as courtyard gardens.

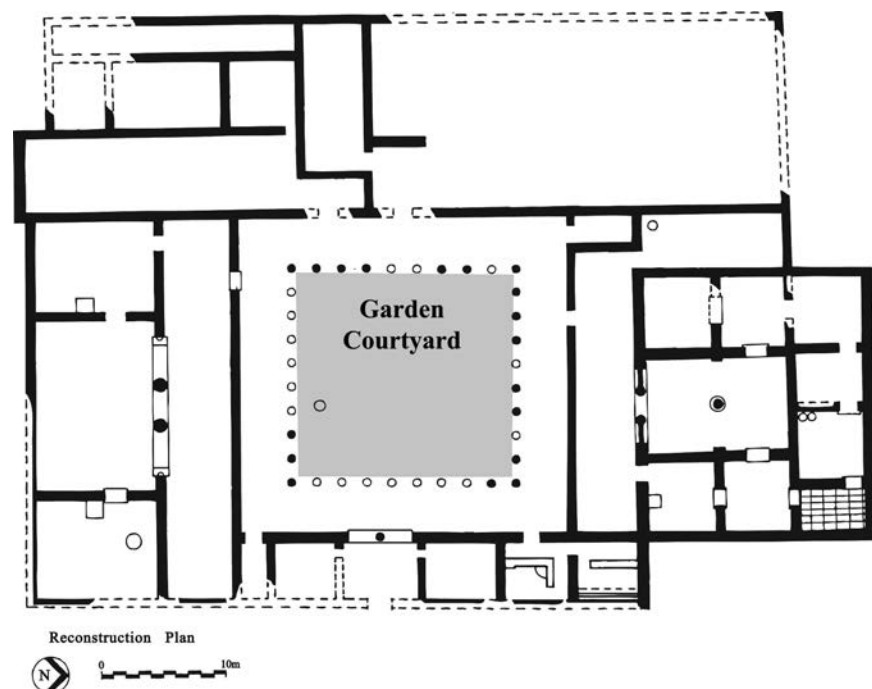
Numerous other Hellenistic residences, belonging to kings, generals, or governors, were also set in designed landscapes. The palace of Tryus in Jordan, better known as Araq el Emir, was on an island in an artificial lake,²⁵ and the royal palace of the Seleucids in Antioch was similarly located in a designed landscape or garden on an island in the Orontes.²⁶ Such royal landscapes were clearly a significant type of Hellenistic “garden,” which could take different forms according to variations in personal taste and natural topography.

The derivation and role of the planted courtyard in Roman gardens remain much debated, with scholars arguing for an indigenous Italic ancestry or else for an origin based on a cultural exchange with garden traditions of the Hellenistic world. Such origins are not mutually exclusive because both could have contributed elements to the Roman courtyard garden of the late Republic and Empire.²⁷ Some recent archaeological evidence, however, seems to suggest a Hellenistic rather than Italic origin. Excavations around the perimeter of the central courtyard of the early Hellenistic governor's palace on the acropolis of Jebel Khalid, by the Euphrates in Syria, yielded the presence of loose, nitrogenous soil, which is suggestive of plantings, although not confirmed (Figure 3.2).²⁸ This interpretation would place a garden in the architectural heart of a Hellenistic palace and could support the existence of such gardens long before courtyard or peristyle gardens

entered the Roman horticultural tradition. Through a process of cultural exchange, the Romans of the late Republic may well have imported a conception of courtyard gardens from the Hellenistic world, but transformed them into something truly their own, perhaps fusing them with the courtyard gardens that already existed in Roman Italy.

This brief consideration of Hellenistic gardens clearly demonstrates that gardens, of diverse functions and forms, were integral elements in Hellenistic palaces. They served as settings for architectural complexes and possibly as courtyards providing light and fresh air for the residences. Such Hellenistic gardens, which may have been primarily ornamental,²⁹ could have provided alternatives to the productive Italian gardens and served as an inspiration for Roman villa gardens of the late Republic. Undoubtedly there were Hellenistic kitchen gardens and other productive gardens that supplied vegetables,

Figure 3.2 Hellenistic governor's palace, Jebel Khalid, Syria, plan, modified from Clarke 2001, fig. 3.



fruits, and other delights, but evidence for these remains scant.

Thus, the advent of a non-producing garden in Roman Italy may not have been an indigenous development but one that resulted from contact and exchange with the eastern Mediterranean. In the late second century BC, the Romans began to incorporate the architecture of the gymnasium and the gardens of Hellenistic palaces into their villas, which served either as working farms and elite rural residences, or as opulent estates with a limited or non-existent producing capacity. The villa at Settefinestre and the Villa of the Papyri at Herculaneum illustrate the evolution of the Roman villa garden and two of the possible architectural and horticultural forms that it could embody in the late Republic and early Empire.

The villa located at Settefinestre, in the *ager Cosanus* in southern Tuscany near the sea, had two distinct phases, each planted with various gardens. It had both a *pars urbana*, or well-decorated residence, and a *pars rustica*, a productive farm. The first phase of the villa dates from 40 BC to AD 100, and the second to between AD 100 and 200; the villa was abandoned near the end of the second century AD.³⁰ Although no remains of the plants survive, archaeological investigations yielded evidence for gardens in both of the villa's phases.

Situated atop a hill, the villa and its gardens were positioned on several levels. Within the first phase of the villa, the excavators identified three gardens: *giardino porticato*, *giardino turrito*, and an *orto* (Figure 3.3). The *giardino porticato* was in fact two gardens, separated by a wall and positioned on two levels at the southwestern edge of the villa. While stairs connected these two spaces on the east and

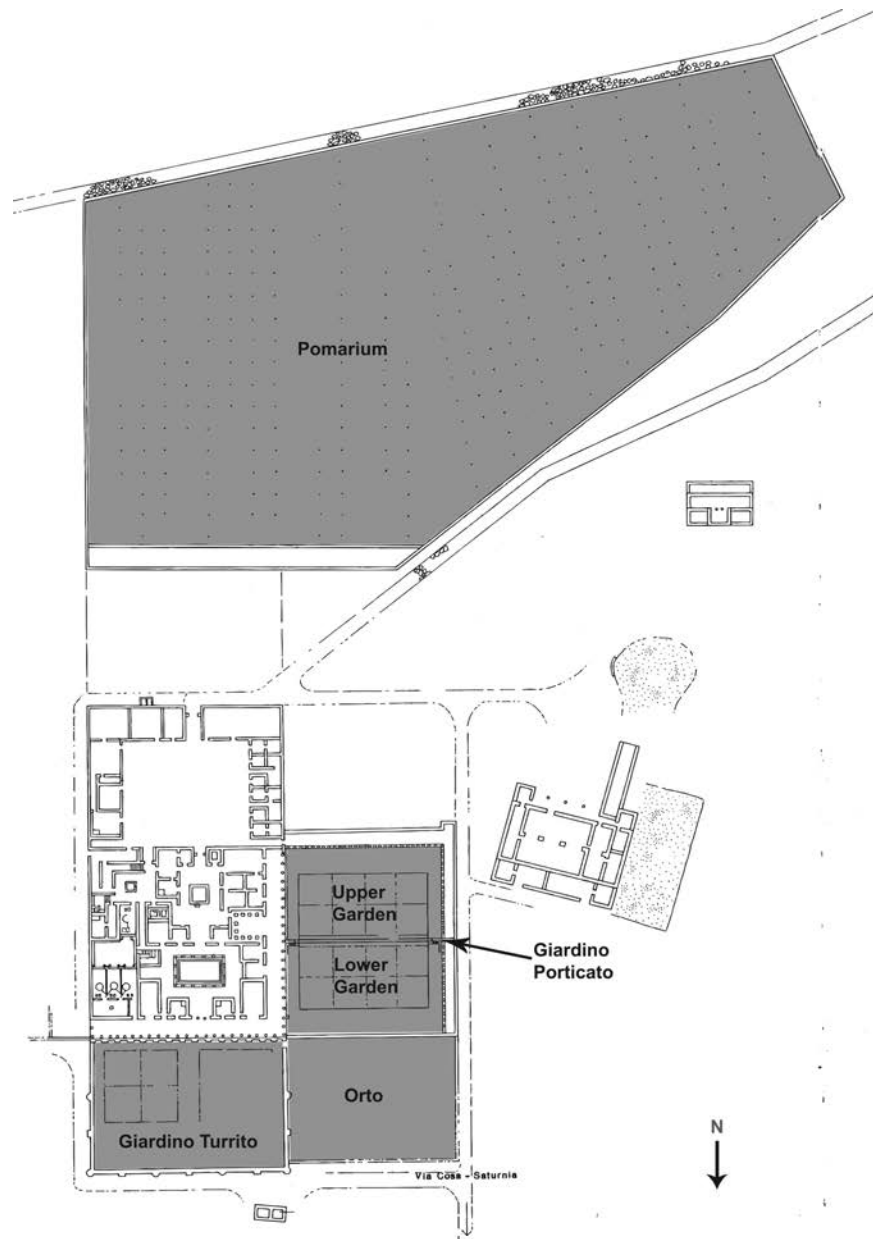
west of the dividing wall, they may have had different purposes.

The excavators observed that the upper garden must have been used primarily for strolling with important guests, attested not only by its location adjacent to the reception rooms, but also by its elaborate, decorative elements and plan.³¹ This π -shaped colonnaded courtyard had a central planting bed, which the excavators suggested was divided into two squares, and a path bordered by plants around the perimeter of the colonnade.³² Furthermore, within the porticoes of the upper garden were niches, perhaps for fountains or statues.³³ The high position of this garden and the exclusion of a portico at the north permitted unobstructed vistas – an important and impressive element in the experience of visitors. The formally planted garden, porticoes, vistas over the *ager Cosanus*, and possible water features or sculptures indicate that this garden was probably a non-productive, luxurious space created for private enjoyment.

A second garden was contiguous to, but at a lower level from, the so-called upper garden; a hedge planted along the retaining wall separating the two gardens must have physically and visually integrated these spaces. This lower garden, enclosed on three sides by walls (a small entrance at the east) and on the fourth (western) side by a portico, was formally planned in two equally sized, square planting beds and a path around the perimeter; a hedge was planted along the dividing wall. The path could have been used for strolling, as in the upper garden; however, the entire ensemble may have functioned as a showpiece to be viewed from the upper garden.³⁴

While the excavators considered these two gardens to be part of a unified,

Figure 3.3 Villa at Settefinestre, Ager Cosanus, Italy, plan, first phase, modified from Carandini 1985, fig. 139.



gymnasium-inspired complex, they also acknowledged that the lower garden was located in close proximity to the working, productive elements of the villa and was enclosed by simpler architecture than that which enclosed the upper garden.³⁵ The lower garden, therefore, may have been a kitchen garden rather than a formal garden; or it may have been multi-functional, serving as a connective space between

two levels of the villa, as well as a pleasant, although simple, space for leisured walking.

Another enclosed garden on the level of the *basis villae* at the northeastern part of the residence was designated by the excavators as the *giardino turrito*. This garden was organized around two square planting beds bordered by paths. Each bed may have been divided into four smaller,

equal-sized beds, with a central walk; the whole ensemble was probably designed for enjoyment, mainly strolling, rather than for production.³⁶ Furthermore, as the name given to this garden suggests, the garden's exterior wall resembled a city wall and its guard towers.³⁷

The organization of both levels of the *giardino porticato* and the *giardino turrito* introduces us to a fundamental element in the design of the non-productive Roman villa garden: order. The open spaces of these gardens were organized according to geometric principles, using squares and rectangles to create formal environments. The paths reinforced the rectilinearity of the architectural surround by their careful alignment with the colonnades of the porticoes and walls that bordered the open spaces. This formal approach to garden design reflects the Roman attitude toward space: order should be imposed upon architectural and landscaped environments. It also highlights how the garden and architecture of the villa were integral to each other. They were conceived together and connected in terms of design and use. This point, which is evident in the earlier Hellenistic palaces, is fundamental but typically has been overlooked. The garden is not simply a luxury addition but rather an integral part of the Roman villa and Hellenistic palace; it acts essentially as another "room."

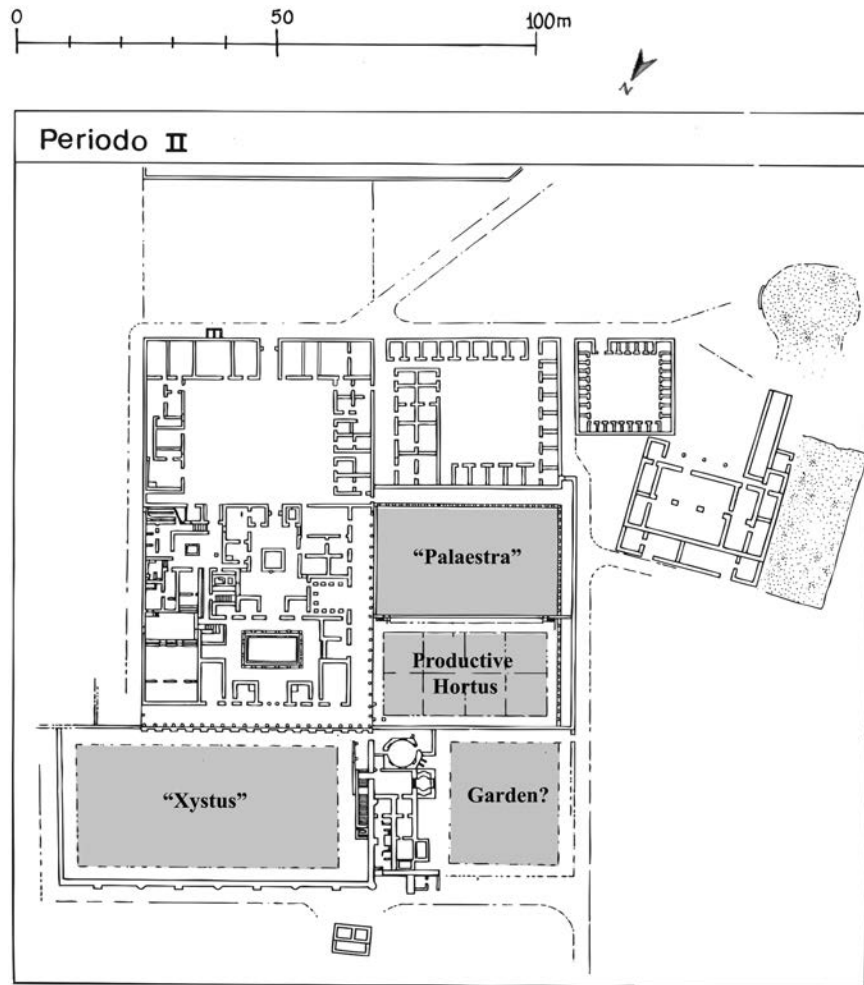
In addition to the two non-utilitarian gardens, two productive gardens have been identified at Settefinestre. North of the lower level of the *giardino porticato* was an *orto*, a productive garden. While few traces of the plantings remain, the plain architecture enclosing it suggests that this was probably a kitchen garden

providing flowers, fruits, and vegetables for the villa. In addition, a large, walled *pomarium*, or fruit orchard, was located along the southern approach to the villa.³⁸ The presence of *torcularia*, presses for wine and oil, also supports the existence of nearby vineyards and olive groves. The diversity of the gardens at Settefinestre demonstrates clearly that a Roman villa could be a productive farm and at the same time possess formal gardens.

In the second phase of the villa, the residence and gardens were remodeled.³⁹ The upper level of the *giardino porticato*, according to the excavators, was transformed into a *palaestra* and the lower into a productive *hortus*, while the *orto* was reduced in size to accommodate a bath complex at the east (Figure 3.4). Furthermore, the *giardino turrito* was expanded and modified into what the excavators identified as a "sports field" or a *xystus*, although no specific horticultural or architectural remains confirm this identification. The excavators' terminology belies the confusing use of ancient words to describe archaeologically known gardens; there is little from the extant remains to support the identification of these spaces as a *xystus* or a *palaestra*.

The porticoes, which enclosed these gardens, suggest that they retained a non-productive, leisure function. Kitchen gardens and orchards as well as non-productive gardens also remained, for obvious reasons, integral parts of villa life during the second building phase. The producing and landscaped gardens at Settefinestre illustrate well the melding of the Italic productive garden with the ornamental, enclosed garden traditions of the Hellenistic world.⁴⁰

Figure 3.4 Villa at Settefinestre, Ager Cosanus, Italy, plan, second phase, modified from Carandini 1985, fig. 140.



Furthermore, the non-producing gardens, architecture, and design of the villa at Settefinestre also highlight other important principles of the Roman villa and its gardens. Not only were gardens often designed according to ordered patterns, but the very position of the villa within its surrounding landscapes was equally important. The villa at Settefinestre, located high atop a hill, provided commanding panoramas for its inhabitants and at the same time majestic views of its architecture for those approaching from below.⁴¹ The larger landscapes into which Roman villas were set were often terraced and could have been manipulated

to provide the owner of each villa with the best possible views.⁴² This producing landscape was also attractive to gaze upon; it reminds us that just because a garden or landscape was productive did not mean that it was not aesthetically pleasing.

As we shall see, many of the design principles utilized at Settefinestre were typical of Roman villas and their gardens in the first and second centuries AD. Yet, Settefinestre, as a functioning farm and a luxurious retreat, is an exceptional *villa rustica*. For example, many provincial *villae rusticae*, such as those found in Roman Libya, were either farms or retreats, but not both. There may be no absolute

“Roman villa” or “Roman villa garden,” but instead merely numerous interpretations with enough common elements to be recognized as belonging to a single tradition.

In the first centuries BC and AD, as villas evolved into luxurious retreats of the Roman elite, their former productivity was drastically reduced. The Bay of Naples, Campania, and central Italy were home to the first of these impressive, non-productive maritime and inland villas, which included landscaped gardens, filled with sculptures, paintings, water features, and plantings.⁴³

The Villa of the Papyri, located just outside of Herculaneum, is one of the best examples of these luxurious, high-status maritime villas.⁴⁴ Since its discovery in the eighteenth century, the villa’s outstanding sculptural collection and its extraordinary library of Greek papyri have garnered much scholarly attention.⁴⁵ Although generally not the focus of these studies, the gardens were fundamental elements; they compose a considerable total area of the villa’s footprint (Figure 3.5).⁴⁶ Built in two phases, from the first to the second half of the first century BC, the villa contained two gardens: a square, porticoed garden

A (29.5 × 28.5 m) from the original phase, and a monumental porticoed garden B (94 × 31 m), constructed during the second phase.⁴⁷ Their decor and multiple functions highlight within a single villa the diversity of non-productive gardens.

The porticoed garden A, adjoining the *atrium*, was the core of the residence. With at least twelve entrances, this transitional space provided access to many rooms in the residence. As the heart of the villa, garden A stands, therefore, in the tradition of central courtyards of Hellenistic palaces and its decor, works of art, and water features all signaled its importance. For example, fountains in the form of conch shells, situated in the intercolumniations of the colonnade, sprayed water into a long, narrow pool in the center of the garden.⁴⁸ Some of the sculptural works included a Doryphoros herm by Apollonios, a first-century BC Athenian artist; a female herm; probably busts of philosophers and other male personages; and a statue of Panathenaic Athena.⁴⁹ The subject matter of these sculptures alluded to the world of classical Greece and Greek philosophy and, thereby, projected the cultural sophistication and aspirations of the villa owner.

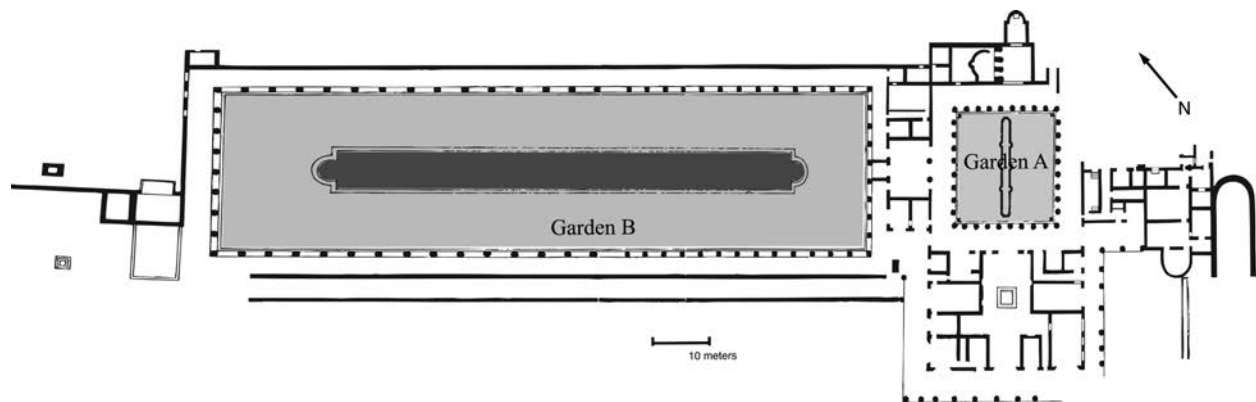


Figure 3.5 The Villa of the Papyri, Herculaneum, Bay of Naples, Italy, plan, modified from Neudecker 1998, Beil. 1.

Porticoed garden B seems to have had a purpose and inspiration different from garden A. This garden was a self-contained complex adjoining the residential block and could be reached through a series of nine entrances, primarily from small rooms along its southern side, providing access *to* rather than passage *through* garden B. Furthermore, no rooms adjoined garden B on its eastern and western sides, making it more self-contained and architecturally isolated than garden A. In effect, garden B was more a destination designed for leisure activities and less a space through which one passed to reach other parts of the villa.

The sculptural displays,⁵⁰ plantings, and long pool must have created an atmosphere of *amoenitas*.⁵¹ Sculptures of rulers of the Hellenistic world, Greek gods, philosophers, writers, and orators no doubt prompted philosophical, political, and literary discussion as one strolled inside the porticoes or through the gardens, as one might have done in a gymnasium or philosophical school. The bronze wrestlers might have recalled the physical side of a young man's education in Greece, while the stags, satyrs, and Priapus could allude to Bacchic revels, rural pursuits, and other myths. Other sculptures depict elegantly dressed women in Greek *peploi*. In garden B, multiple themes play out, seemingly evoking different aspects of the Hellenistic world.⁵² It was a garden of allusion; the architectural setting, the plantings, and the sculptures had the capability of transporting visitors to a Greek gymnasium, to a philosophical school, and to a mythical world. Clearly, this porticoed garden was a *locus* for leisure activities; it was not a connective space, like garden A.

In addition to these gardens, other landscaped settings undoubtedly were important in this villa, particularly a terrace, accessible from garden B, which stretched from the northwestern end toward the coast. Although we cannot reconstruct any horticultural elements on this terrace, we know it had a belvedere, which offered commanding views of the sea and coastline.⁵³ The terrace with its tower was most likely constructed specifically to take advantage of the view, but its visibility from below must have been of equal importance, similar to that of the position of the villa at Settefinestre, previously discussed.⁵⁴ The terrace and belvedere imply that the larger landscape, both in which the villa was set and over which it looked, could become a valuable part of the villa, even if it was not owned or controlled by the proprietor.

The Villa of the Papyri was rich in gardens. Gardens A and B alluded to two of the Hellenistic world's architectural forms, the courtyard garden of the palace and the gymnasium, respectively. Taken together, the formal gardens A and B, the terrace, and belvedere suggest that the Romans conceived of the larger environment in which a villa was positioned as an integral part of their "garden" experience.⁵⁵ As the gardens of Hellenistic palaces cannot be narrowly defined, the Roman villa garden could and did have different iterations; not only was it a formally planted garden in a courtyard or one otherwise attached to a residence, but it also could be a designed landscape (if the term "garden" is used in a broad context, as suggested in the opening part of this chapter) that offered pleasant views from the villa grounds.

Non-producing gardens were particularly associated with villas by the sea,

which were typically luxury residences meant for retreat and leisure.⁵⁶ Such formal gardens are attested at Villa Arianna, Villa San Marco, Villa del Pastore, all in ancient Stabia, just south of Pompeii, where there were a number of producing and luxurious villas.⁵⁷ On the whole, they were locations of sophisticated display, where sculpture, paintings, water, and plantings expressed elite, cultural interests.

The shores of volcanic lakes, such as Lake Nemi, south of Rome, were also places for maritime villas that possessed panoramic views of the water, neighboring villas, and the larger landscape.⁵⁸ The wider terrain associated with these villas has not been systematically explored, so it is difficult to know whether it was cultivated in antiquity. Archaeological surveys and excavations of the larger landscape would illuminate whether productive gardens were important elements of at least some of these villas.⁵⁹

By the early Empire, villas and villa gardens were popular throughout Italy, but the epicenter was Rome, from which many villas were located within one to two days' ride. At this time, another type of residence also became a part of the Roman architectural and horticultural canon: the Imperial residence in the city. While these residences were not strictly speaking villas, a discussion of their similarity to the design, decoration, materials, architecture, and gardens of Roman villas enriches our understanding of Roman villa culture. Villas, by their very nature, were non-urban; the *domus* was the residence within the city. However, many elite urban residences in Rome, due to the new wealth and intense social and political competition that defined the late Republic, soon took on the scale and

scope of a villa and came to include lavish gardens and architecture; they were also influenced by elite Romans' contact with the Hellenistic world.⁶⁰ Many of the new trends in architecture and gardens originated in Rome and then were exported in some form to the rest of the empire. But, before discussing Imperial residences and villas, it is worth exploring villas near Rome to understand the development of the Roman villa and its gardens during the early Empire.

The Villa ad Gallinas Albas at Prima Porta, widely accepted as having belonged to Augustus' wife, Livia, is a large complex (about 14,000 m²) atop a steep hill, located just north of Rome near the Via Flaminia.⁶¹ In 1863 a statue of Augustus and a famous subterranean room with garden frescoes were discovered and more recent excavations have uncovered at least four real gardens, one of which is particularly significant: the garden terrace (Figure 3.6).⁶²

Excavations have shown that this square terrace (74 × 74 m), dating from the late Republican period, was enclosed on three sides by double-aisled porticoes.⁶³ The Corinthian columns of the porticoes were stuccoed and painted; fragments of architectural terracotta, which presumably had adorned the entablature, and fragments of Second Style wall paintings from the western colonnade were recovered.⁶⁴ Set behind the northern portico was a series of niches, 50 to 180 centimeters high, cut into the slope of the hill, which were probably planting beds, creating a small hanging garden. In front of these planting beds ran a *euripus* that was later filled and transformed into another planting bed.⁶⁵ Although agricultural activities of later times have disturbed the ancient levels, the analysis of mollusks and the recovery

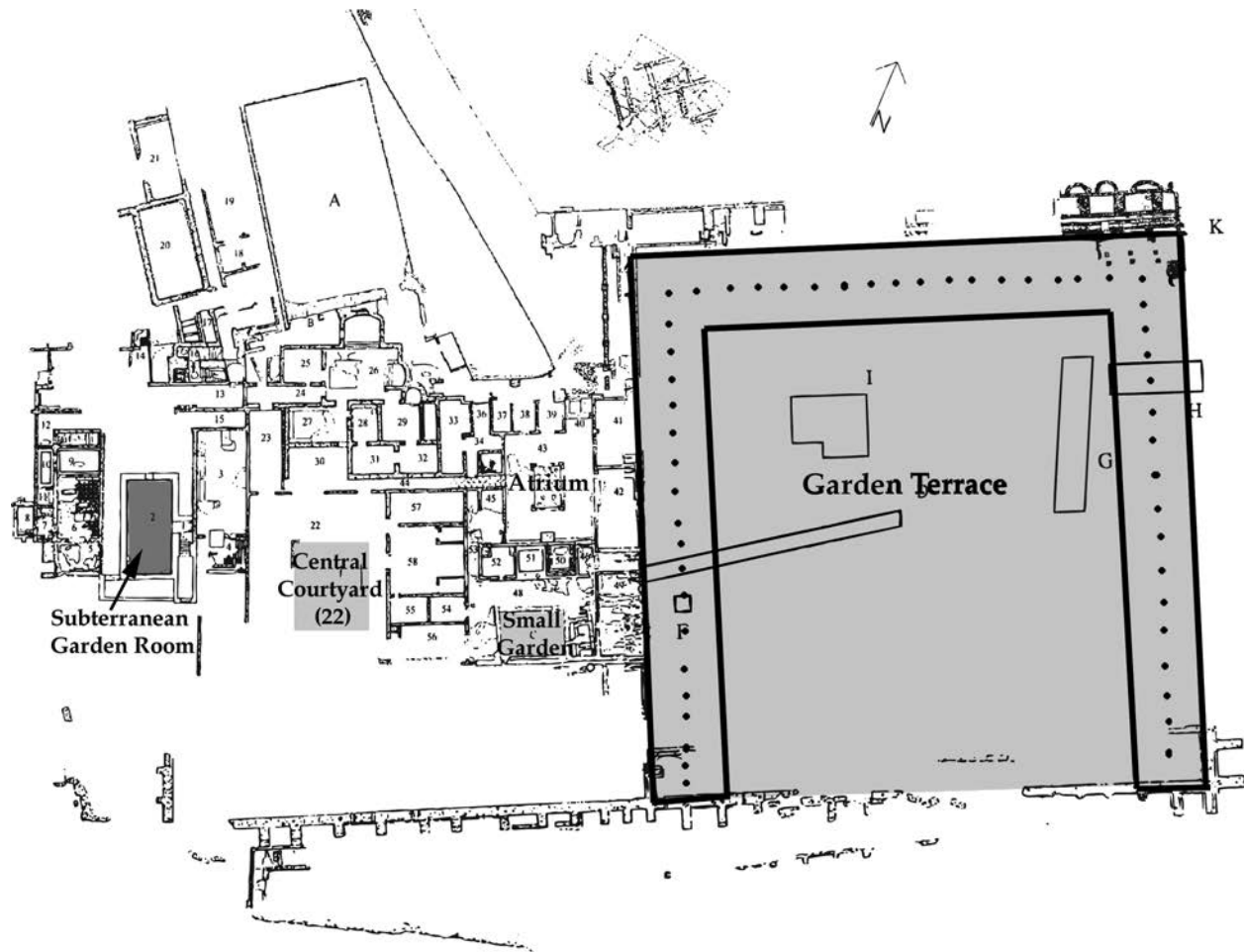


Figure 3.6 Villa of Livia at Prima Porta, Rome, plan, modified from Klynne and Liljenstolpe 2000, 220, fig. 1.

of *ollae perforatae* clearly indicate that the terrace was a planted garden in antiquity.⁶⁶ The plantings are not known; however, some scholars have speculated that it was the place of a famous laurel grove of the Julio-Claudians.⁶⁷ The luxurious decor of the porticoes and the plantings, whatever they may have been, no doubt created a pleasant atmosphere suitable for leisurely walks associated with a cultured lifestyle.

The design and scale of the garden terrace may have resembled a rural sanctuary, like those at Nikapolis in Greece or Gabii in central Italy.⁶⁸ Like the π -shaped porticoes that enclosed the plantings and

the altar or temple of these sanctuaries respectively, the garden terrace, which was set high on the hill, was intimately connected with its immediately surrounding landscapes. The use of sacred architectural forms within a private residence reminds us that there were many sources of inspiration for the villa gardens. Distant views of Rome were also possible, the colonnades providing a series of framed views, as a sequential, if not quite cinematic, vision of the city.⁶⁹ The view of a city or of other human habitations was visually stimulating, so those seeing the city from the Prima Porta villa must have considered themselves particularly

fortunate.⁷⁰ Likewise, inhabitants of Rome could see the villa itself, making it, and, by extension, its owner a visible part of the landscape. As a result, the villa imbued its owner with baronial power by giving him/her "possession" over all that was visible and at the same time by being the visible object of envy to the less privileged.

In addition to the monumental terrace, the Prima Porta villa had other gardens. A small garden (ca. 6.10 × 9.06 m) was enclosed by an Ionic colonnade, which was paved with mosaics and probably marble (see Figure 3.6).⁷¹ As the garden terrace, this small garden also enjoyed southerly views toward Rome. Twenty-two *ollae perforatae*, found in the courtyard, were aligned with the columns at intervals of five Roman feet, a typical reflection of the Roman preference for order. Many of the planting pots were replacements, indicating a replanting, probably in the late first or early second century AD, sometime after the earlier garden of 40 BC.⁷² In the center of the courtyard, on axis with room 51, was a π-shaped concrete structure, apparently original to the first garden, whose function is unknown, but which may have served as a fountain, statue base, or some type of elaborate planter.⁷³ The central courtyard of the villa (no. 22 on the plan) also may have been planted, as fragments of *ollae perforatae* found nearby attest; there may have also been a garden or planting feature associated with the *frigidarium* in the bath complex.⁷⁴ Traces of *ollae perforatae* found in various locations around the villa suggest the presence of other gardens or landscaping, although their original form and purpose are unclear.⁷⁵ Another "garden," and no doubt the most famous at Prima Porta, is the subterranean room, whose four walls were adorned with paintings

that created a fantastic and totally artificial garden landscape.⁷⁶

The presence of so many gardens, both real and artificial, suggests that gardens were a priority in the conception, design, and use of this villa. The plantings of the garden terrace coupled with the hanging garden and the double portico must have created a stunning effect of real plantings in concert with architecture. In contrast, the interior space of the subterranean room employed a fictive garden but with similarly astonishing results. Like the garden rooms at Villa A at Oplontis,⁷⁷ the *trompe l'oeil* paintings of Livia's Prima Porta room were meant to inspire viewers into believing they were within an outdoor garden. This inventive and playful attitude toward space, interior and exterior, reality and artifice, which typifies much of Roman art and architecture, was an essential element of the Roman villa garden and speaks to its innovative nature, originality, and diversity. Not only were gardens, such as the small garden and the courtyard no. 22, architecturally central to the villa, but also the size of the garden terrace, 5,476 square meters, was just over a third of the villa's known area. The total amount of space occupied by plantings in this villa suggests that gardens and the activities they housed were essential to the architectural planning of a Roman villa and to its manifest culture.

Thus far, our discussion has examined a number of the essential decorative elements of the Roman villa garden, in particular the plants and the works of art, as well as the architecture that enclosed them. Water was also critical, not only for its important role in sustaining plants, but also as a decorative element, in the form of fountains, pools, and canals, which

Figure 3.7A View from the grotto of the Villa at Sperlonga, Italy.



helped create environments imbued with cultural meaning.⁷⁸ In fact, some Roman gardens were designed around water as the primary feature, such as in the House of the Fountains in Conimbriga, Portugal, where the central courtyard of the house (25.8×11.6 m) featured 400 fountains or “jets d’eau” and a rectangular water-filled basin where six symmetrical watertight planters were placed, creating a unique and remarkable water garden.⁷⁹ Water often played a key role in garden *triclinia* in Roman houses and villas, such as the Scenic Canal (the so-called “Canopus”) at Hadrian’s Villa, which is discussed below. One of the best-preserved water *triclinia* is the late first-century BC grotto-cum-sculptural gallery at the villa at the edge of the sea near Sperlonga, located about a day’s journey from Rome, which the emperor Tiberius may have owned in the first century AD (Figure 3.7A; Figure 3.7B).⁸⁰ This *triclinium*, I would argue, is a type of designed landscape, which deployed many elements, including a skillful and intentional combination

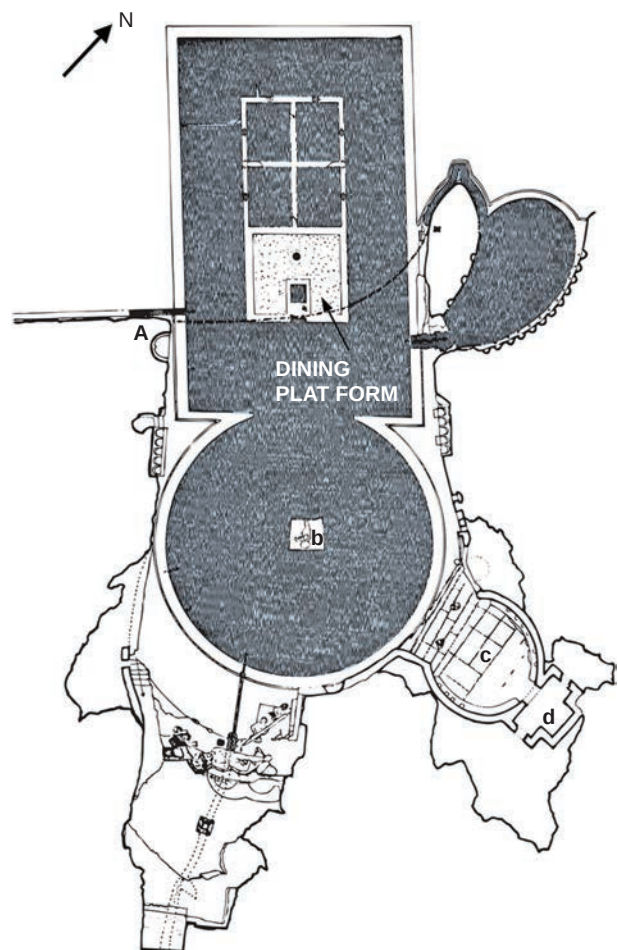


Figure 3.7B The grotto of the Villa at Sperlonga, Italy, plan, modified from Salza Prina Ricotti 1987, fig 2.

of natural and artificial elements with a specific sculptural program.⁸¹

The setting today is still impressive: a large, partially water-filled cavern at the base of a rocky cliff near the sea (Figure 3.7A). A man-made, round basin fills the lower level of the cave, beyond which are two smaller grottoes at a higher level. This basin opens outward to a rectangular, constructed basin where a platform for an outdoor *triclinium* facing into the cave was located. While the overall form of the grotto was a natural cave and spring, it was extensively modified to meet the demands of the villa owner. Thus, water and natural rock were fundamental to the ambience of this grotto and, as the plantings of many villa gardens, were manipulated to create a designed landscape, rich in allusions and cultural meanings.

At least four sculptural groups with a Homeric theme were displayed within this imposing setting.⁸² They have been dated as early as the second century BC and as late as the first century AD, but most scholars believe, regardless of the date of the sculptures, that they were assembled together in the grotto by the early first century AD.⁸³ The grotto's sculptural program, coupled with the natural and artificial elements of the cave, transformed the grotto into a series of vignettes from the *Odyssey*. Additionally, a boat journey to and within the cave could have evoked scenes from the *Iliad* and *Odyssey*. Specifically, the sculptures likened the diner's experience there to Odysseus' adventure home by sea, so that the cavern became an "Odyssey landscape."⁸⁴

Only from the *triclinium* could the sculptural program and the artificial caves be fully appreciated.⁸⁵ Located on

the left outcropping between the circular and rectangular basins was a warrior, perhaps Odysseus, holding the body of a fallen comrade; this group quite clearly could evoke the battles of the Trojan War as recounted in Homer's *Iliad*.⁸⁶ Located on the opposite side of the grotto was the sculptural group of Odysseus and Diomedes grasping the Palladium of Troy, alluding to the fall of Troy. Together these two groups set the stage for the Homeric journey that played out in the waters and caves of the inner grotto.

In the southern, larger grotto within the cave was a group of Odysseus and his men blinding the giant Polyphemus. The coinciding natural and literary settings (taking place in a cave) for this frightening episode made the diners both witnesses and virtual participants in Odysseus' daring escape.⁸⁷ Having avoided death, Odysseus and the diners faced another challenge. On a base in the center of the round basin, on axis with the *triclinium*, stood a sculptural group of Scylla attacking Odysseus' ship.⁸⁸ This group transformed the cave into the Charybdis, the eddy that wrecked ships crossing the perilous Straits of Messina; for a moment the diners became Odysseus' unlucky sailors.⁸⁹

The position of the complex looking westwards to the sea was also important. Just as one could enjoy the vistas into the cave, the views out from the *triclinium* were equally stunning and evocative, and were probably enjoyed by those who were reclining and dining along the edges of the pool. Likewise, because it faced west, the cave benefited from the outstanding interplay of light and shadow during the evening sunset, making it the perfect venue for Roman dining.⁹⁰

Like the landscaped gardens, here the sculptural program in its water and grotto setting as well as the movement through it created a landscape of allusion that advertised the cultural sophistication and awareness of the owner.⁹¹ The grotto was thus a water garden purposefully designed to be rich with literary meanings. But it was also productive, for it served as a fishpond, or *piscina*, where fish were raised. Both functions alluded to the sea, and the fish could even be caught for dinner.⁹² There is no evidence for plantings and the brackish nature of the water excludes this possibility; however, the fact that fish could be raised here means, as in many planted Roman gardens, this grotto was producing but also was imbued with deep cultural meanings. Perhaps ducks or other appropriate waterfowl were also added to the basins, turning this into an even more dynamic and alive environment.⁹³

The villa at Sperlonga is an outstanding example of the extent to which the Romans skillfully manipulated a natural landscape – water, caves, fish, and light – in conjunction with artificial elements, in particular sculpture and architecture, to create a complex setting. The grotto was more than just a decorative water garden, for it employed water, sculpture, and the experience of place to evoke a journey through space, time, history, and myth.⁹⁴ As villa gardens exploited nature and artifice for their plantings, so the Sperlonga grotto manipulated rock and water to produce what may be rightly called a “designed landscape.” By fusing these two elements together, the owner of a garden was able to make rich cultural and, in this case, literary allusions. Here the grotto-cave became a venue for a condensed literary experience that would have been the

perfect topic of conversation for a sophisticated Roman dining party.

Such creative and innovative approaches to gardens found their most elaborate and sophisticated expressions in Imperial palaces and villas. The Domus Aurea, Nero’s “golden house” in Rome, had all the hallmarks of a villa or of *horti*, including an artificial lake (*stagnum*) and architecture with exterior colonnades from which to view the surrounding landscape, stretching from the Esquiline to the Caelian and Palatine hills. It is these features that Tacitus and Suetonius condemned as inappropriate to an urban residence, and which must have been associated with places of pleasure and debauchery. For example, in the *stagnum* of Agrippa in the Campus Martius Tigellinus held extravagant parties on rafts and ships, which Nero attended and where Roman social order was inverted and Roman decorum challenged. Reportedly, the crews were organized according to age and vice. Furthermore, on one side of Agrippa’s *stagnum*, Roman matrons served as prostitutes in brothels, while on the other bank, nude prostitutes made obscene gestures. It is not unlikely that Nero’s *stagnum* could have served a similar purpose.⁹⁵ By creating such a landscape in the heart of Rome, Nero challenged Roman conventions of architecture, gardening, and urban planning, just as he challenged Roman mores. The gardens and landscaped terraces of the Domus Aurea within the city were not only a testament to Nero’s power but also an inversion of the proper order of the natural and human worlds (Figure 3.8).⁹⁶

The plantings of the Domus Aurea are unknown; however, a large portico on the Palatine Hill identified as having belonged to Nero’s House once enclosed

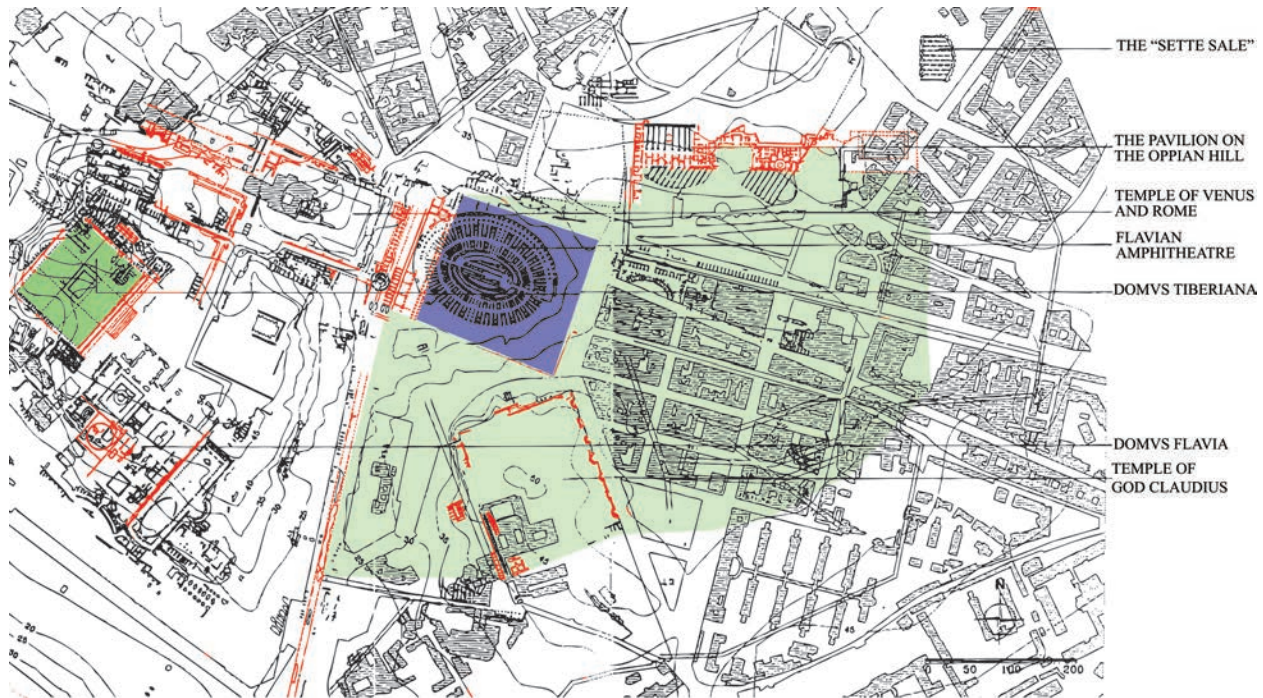


Figure 3.8 Domus Aurea, Rome, plan modified from Segala, Sciortino, and Iacopi 1999, 9, fig. 4.

a monumental garden and the enormous complex on the Esquiline contained several peristyle courtyards where water and gardens must have been key elements. Furthermore, two photographs, taken during excavations in the 1870s, show piles of *ollae perforatae* unearthed near an octagonal room on the Esquiline.⁹⁷ Although we do not know the plants that these pots contained, their very existence implies careful plantings and the presence of designed gardens within or designed landscapes adjacent to the living quarters.⁹⁸

These gardens must have been impressive, but the most extravagant garden element was the landscape itself in which the architecture of the Domus Aurea was set. Our knowledge of this landscape is incomplete; the whole area will never be excavated, as it lies in central Rome. We can, nevertheless, examine one feature that confirms the designed nature of the park: the *stagnum*, or lake, located

in a low-lying area partially enclosed by the Esquiline, Caelian, and Palatine hills, where the Colosseum now stands.⁹⁹ Scholars had long assumed that this *stagnum* was simply an artificial, but a naturalistic-looking lake; however, recent archaeological excavations have demonstrated that it was, in fact, a monumental, rectangular basin measuring approximately 200 × 200 meters and enclosed by a colonnade.¹⁰⁰ Although we often lack a sense of the design of the Domus Aurea's larger, landscaped setting, this square, porticoed "lake" suggests that the entire park was likewise not a naturalistic, wild landscape, but designed as a series of organized spaces.

The gardens of the Domus Aurea inform us that gardens, especially large-scale designed landscapes, often carried political and social connotations. The highly politicized landscape of the Domus Aurea grew out of the late Republican and

early Imperial *horti*, which seem to have been either peri-urban estates immediately outside Rome, or a type of suburban villa.¹⁰¹ The gardens of suburban estates, including *horti*, were not only expressions of wealth and social standing but also potential places for political events and intrigues.¹⁰² Caesar, for example, used his *Horti trans Tiberim* to host a public feast (*epulum publicum*) after his Spanish campaign, while from the grounds of his *horti* Pompey bribed voters in the election of Africanus as consul in 61.¹⁰³ Private gardens were good places where political plots could be hatched, as in the case of Claudius' disloyal wife, Messalina, who in the gardens of her private *horti* attempted unsuccessfully to conspire to make her lover emperor.¹⁰⁴ Because such gardens could serve as locations to invert political and social order, as well as to stage political rallies and covert meetings, they were too potent as political spaces to be

left in private hands and gradually passed into the imperial domain.¹⁰⁵ In this larger context, Nero's decision to transform the heart of Rome into a private, glorified villa and garden, even if public traffic was allowed to pass through,¹⁰⁶ made Nero the master of the city, just as any villa owner might be titular master over his surrounding countryside.

While the Domus Aurea was architecturally innovative and extraordinary in its landscapes and gardens, later Imperial properties were equally impressive and inventive. Hadrian's Villa, located near Tivoli, east of Rome, was more a small city than a villa, for it was an imperial base of operations.¹⁰⁷ Built in two phases from AD 117 to 125 and AD 125 to 133,¹⁰⁸ it was a sprawling, but organized, complex of more than 120 hectares (300 acres), filled with a wealth of diverse gardens (Figure 3.9).¹⁰⁹ Unlike the Domus Aurea the preservation of

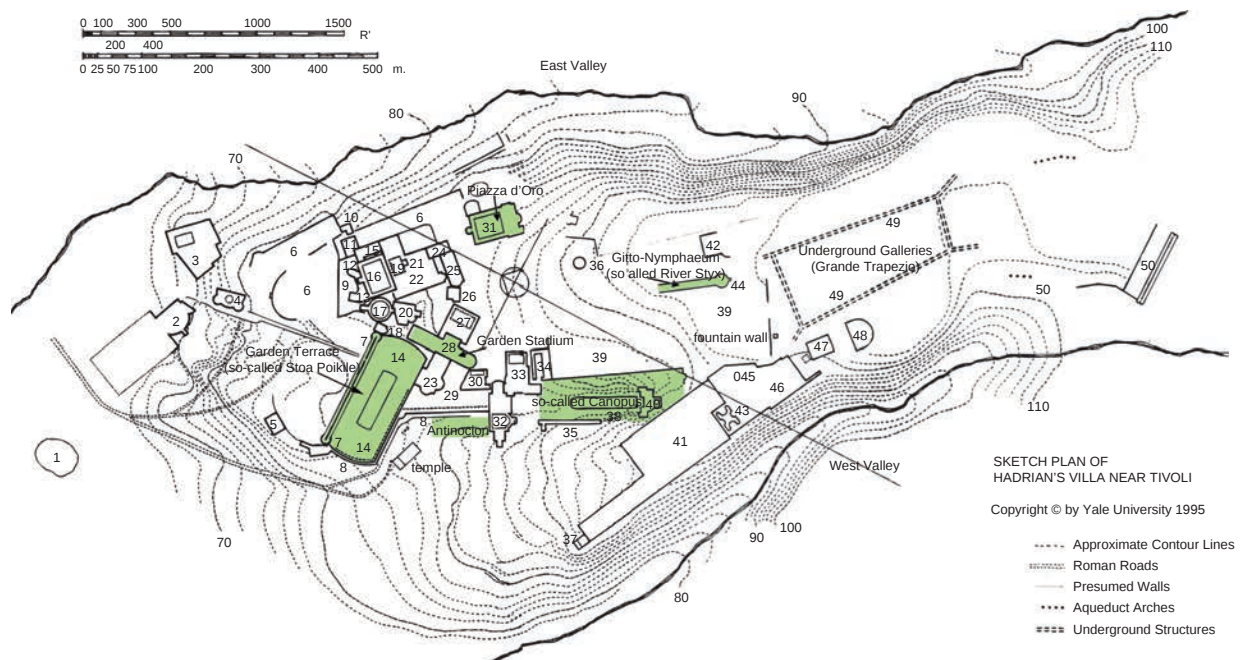


Figure 3.9 Hadrian's Villa, Tivoli, Italy, plan, modified from MacDonald and Pinto 1995.

much of the architecture and landscape of Hadrian's Villa permits good understanding of the diverse types of gardens and their significance in an Imperial villa context. Although early explorers and scholars identified certain buildings with names appearing in the *Historia Augusta*, a notoriously unreliable fourth-century AD text,¹¹⁰ scholars now consider most of these to be incorrect and misleading. Other titles were simply created, without reference to an ancient text, as useful markers. I will attempt to use more neutral terms, although traditional names will appear in parentheses when useful.

The Water Court ("Piazza d'Oro") is a large, luxurious portico-garden complex

located in the eastern part of the estate (Figure 3.10). In the center, on axis with a pavilion, was a long marble-lined *euripus* (fed by a large fountain in the pavilion). A complex drainage and irrigation system supplied the western part of this garden with water. Crisscrossing water channels, cut into the tufa bedrock, 1 meter below the original ground level, allowed drainage.¹¹¹ The plants in this garden are unknown; the excavators have suggested box hedges.¹¹²

The size of this complex (63 × 54 m), akin to porticoes and gardens found in cities, such as the Templum Pacis in Rome,¹¹³ suggests that urban public architecture influenced architectural forms

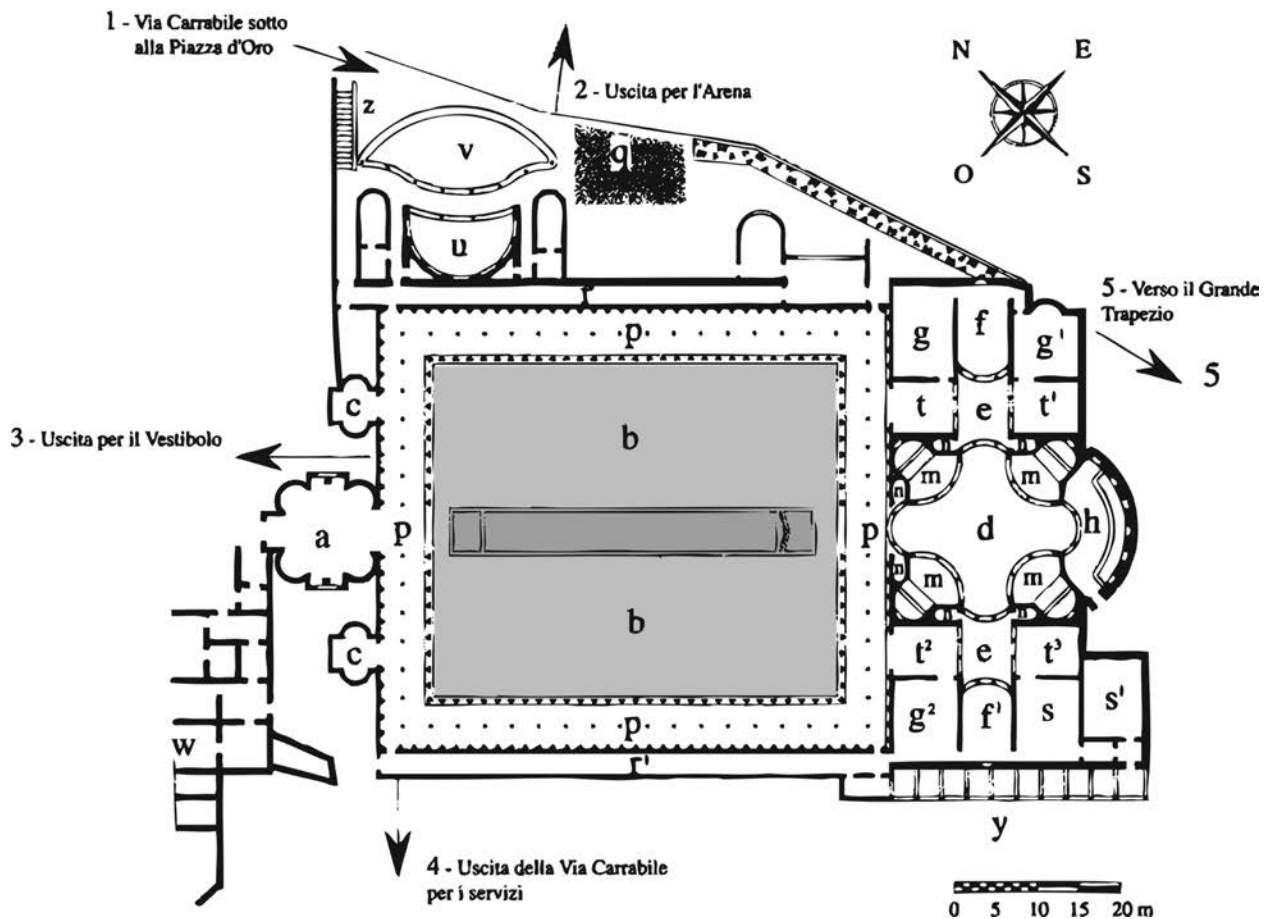


Figure 3.10 Hadrian's Villa, Tivoli, Piazza d'Oro, plan, modified from Salza Prina Ricotti 2001, 266, fig. 96.

Figure 3.11A
Hadrian's Villa,
Tivoli, Stadium
Garden.



A

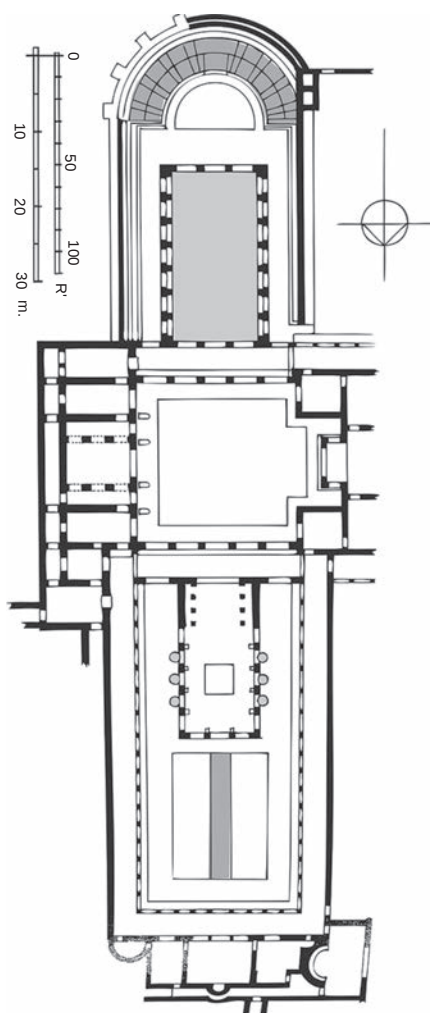


Figure 3.11B Hadrian's Villa, Tivoli, Stadium Garden, plan, modified from MacDonald and Pinto 1995, 76, fig. 87.

and gardens in country villas.¹¹⁴ Because Hadrian's Villa functioned as an imperial residence that accommodated both public and private functions, the Water Court could well have served as a location for strolling with ambassadors, dignitaries, and friends before dining in the pavilion, in much the same way as the Vigna Barberini may have been used by the emperor in the Domus Augustana on the Palatine Hill in Rome.¹¹⁵

The interest in and adaptation of public architecture and gardens are also evident in the villa's Stadium Garden. Set in the heart of the central residential block, this garden had an elongated architectural form, curved at the southern end, which evoked the architecture of a circus or a stadium, just like the circus garden in Domitian's residence on the Palatine (Figure 3.11A; Figure 3.11B),¹¹⁶ but was actually an elaborate, semicircular *nymphaeum*. A northern garden, also set within a portico, featured a series of rectangular planters enclosing a *euripus* and a small pavilion.¹¹⁷ The

pavilion had *opus sectile* paving, marble fountains, and statues. The platform in the center of the complex may have been used for theatrical performances and was visible to the emperor and others who sat at a higher elevation in the eastern *exedrae*. Together with the plantings, *nymphaeum*, and *euripus*, it created an atmosphere appropriate for leisure activities.

The Stadium Garden attests to the playful and experimental nature of Roman villa architecture and garden design that goes back to the late Republic. By transforming monumental public architecture (in this case a race or running track) into an architectural and horticultural *locus* of contemplation and theater, Hadrian and his predecessors blurred the boundaries between public and private.¹¹⁸

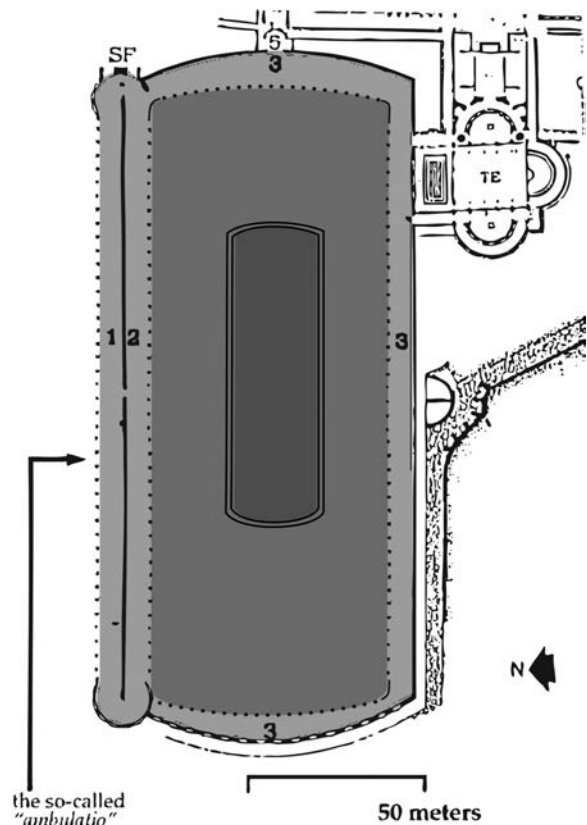
The East-West Terrace was erroneously identified from the *Historia Augusta* as the Stoa Poikile, but it clearly could not have evoked the fifth-century BC *stoa* in Athens, which was a small building named for famous paintings that hung on its interior walls.¹¹⁹ The terrace at Hadrian's Villa, because of its size, design, and decorative elements, must have been a large, walled garden complex (Figure 3.12A; Figure 3.12B). A rectangular portico (232 × 96 m) with curved short ends (the north had a double colonnade) enclosed a monumental pool and garden.¹²⁰ The enclosed space, the length and breadth of the porticoes, the impressive water basin, and the plantings speak of a place of leisured movement and social intercourse.

To the west of the final approach to the Grand Vestibule was the Antinoeion, a temple complex dedicated to Hadrian's



A

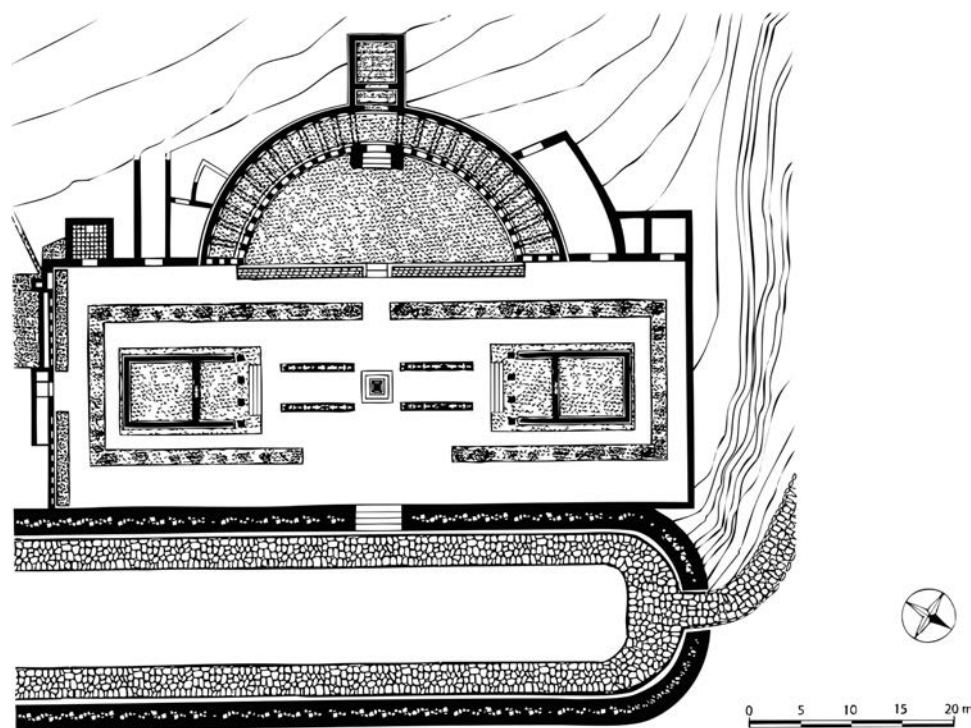
Figure 3.12A Hadrian's Villa, Tivoli, the East-West Terrace or Stoa Poikile.



B

Figure 3.12B Hadrian's Villa, Tivoli, the East-West Terrace or Stoa Poikile, plan, modified from De Franceschini 1991, 203, plan 21.

Figure 3.13
Hadrian's Villa,
Tivoli, Antinoeion,
plan, after Mari and
Sgalambro 2007, 86,
fig. 4.



deceased young lover, Antinous (Figure 3.13).¹²¹ The excavators have reconstructed the precinct, whose poor preservation is due to modern agricultural cultivation, as a *temenos* with two unidentified, marble temples (63 × 23 m) and a colonnaded *exedra* (27.3 m in diameter). It has been suggested that the obelisk dedicated to Antinous, which now stands on Rome's Pincian Hill, stood between the two temples.¹²² Although the *temenos* was paved, plantings played an important role, as revealed by trenches cut into the tufa bedrock on three sides of the temples. Their size, at least 1.2 meters deep and 1.5 meters wide, suggests that they could have accommodated plants with developed root systems; the archaeobotanical remains indicate date palms.¹²³ While these trees were highly suitable to such a precinct because they evoked the landscape of Egypt, where Antinous died,

the exact arrangement of these plantings remains unclear. No individual planting pits were found for the trees, which are typical for plantings in temple groves,¹²⁴ and other reconstructions published by the excavator have suggested that hedges framed the temples.¹²⁵ Four other bedding trenches were reportedly found in the complex; these beds were shallower than the other trenches and so they may have contained flowers or hedges.¹²⁶ Until there is detailed publication of the excavation results, conclusive interpretation will have to wait. However, it is certain that the Antinoeion was an exceptional garden complex in this villa because it was not meant for leisured walks or social events but instead for reflection and commemoration, similar to temple gardens.¹²⁷

South of the Grand Vestibule was the Scenic Canal, a monumental water garden-cum-banqueting pavilion, mistakenly

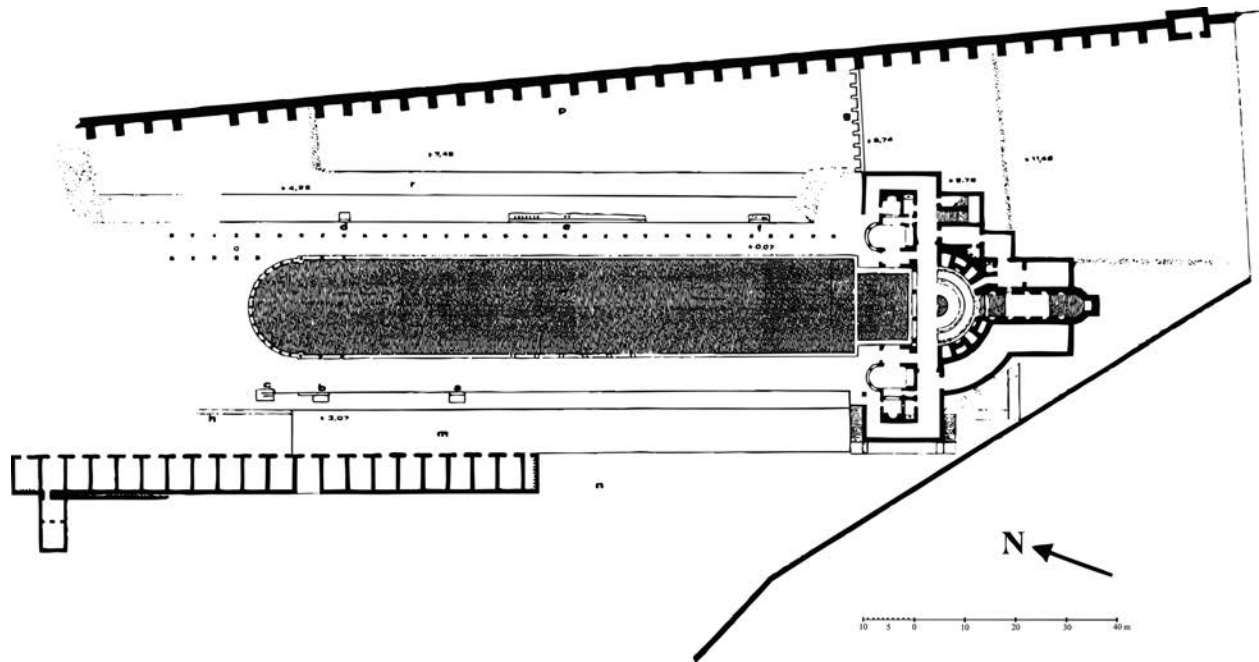


Figure 3.14 Hadrian's Villa, Tivoli, the Canopus, plan, after Jashemski and Salza Prina Ricotti, 1992, 582, fig. 4.

identified from the *Historia Augusta* as the "Canopus," presumably an allusion to the Alexandrian Canopic branch of the Nile (Figure 3.14).¹²⁸ The setting for this complex, perhaps better called the Scenic Canal,¹²⁹ was an artificial valley that had a long central pool (119 × 18 m) lined by colonnaded arcades and sculptures.¹³⁰ A terraced garden was on the western side and evidence of plantings has been discovered as well to the east.¹³¹ The focal point of this complex at the south is an elaborate vaulted, semicircular dining pavilion resembling the mouth of a cave, set into the sloping terrain. Like the grotto at Sperlonga, nature and artifice were used together to striking effect. Constructed behind and above this pavilion was a complex system of channels that led water down a set of central steps into a small, rectangular pool flanked by a matching pair of intricately configured chambers. Guests, dining within

this elaborate interior, had a commanding view of the landscaped valley and of numerous sculptures displayed within and around the expansive canal. It was a truly impressive designed landscape of architectural fantasy, artistic masterpieces, waterfalls, and manicured gardens – a place fit for an emperor and his entourage.

The architecture and gardens of Hadrian's Villa are truly exceptional in their scale and diversity. Not only were there designed exotic landscapes and gardens, but also numerous porticoed garden courts, such as in the Central Vestibule¹³² and the so-called "Sala del Trono."¹³³ Water also played an important part not only as sustenance for the plants but also as an important decorative device, as in the so-called Maritime Theater, the so-called Academy,¹³⁴ and the peristyle-pool complex. There we find almost every type of Roman garden, from the planted

courtyard and the public portico, like the Water Court ("Piazza d'Oro"), to the commemorative, temple-like garden of the Antinoeion and the water gardens of the Scenic Canal ("Canopus"). For all our knowledge about the luxury gardens of Hadrian's Villa, virtually nothing is known about the possible cultivation of the larger landscape in which the villa was set, but it is there where the kitchen gardens, croplands, and orchards likely existed.

Hellenistic palatial gardens, the gymnasium, and the indigenous Italic horticultural tradition of the Republic were, as has been discussed, influences on Roman villa gardens; however, by the early and high Empire, as demonstrated by Hadrian's Villa, new forms were invented to satisfy the demands of the super-wealthy. Through the adoption and reinterpretation of Roman public architecture, specifically the public portico, the theater, the stadium, and the circus, and through a fantastic use of water, landscaping, as well as the more traditional decorative elements, such as sculpture, architects and designers created ever more complex and evocative gardens and outdoor spaces.

Not only in Rome and its environs but also outside Italy, soon after the establishment of the empire under Augustus, elaborate gardens became significant features of villa landscapes. These provincial villas and their gardens may have taken their lead from Rome; however, they reveal, sometimes considerable, diversity from their Italian prototypes and even among themselves. The provinces were settled by Romans at different times, had various levels of urbanization and cultural sophistication, and differences in religious practices, climate conditions,

economic stability, and ethnic makeup.¹³⁵ Diversity is also evident in architectural and horticultural traditions, which influenced appearances of villa gardens in the provinces. While it is not possible to review here the villa garden traditions of each province, a few select examples should highlight their diversity and the cultural exchange between Roman and local elements.

Fishbourne, a grand villa dated to ca. AD 70, located on the southern coast of Roman Britain in modern West Sussex, was designed around a monumental, colonnaded courtyard (Figure 3.15).¹³⁶ Bedding trenches, 10 meters wide, suggest formal plantings in a balanced, geometric layout (alternating rectangular and semicircular shapes) flanking a central path (12.1 meters wide) through the courtyard from an impressive entrance hall to an audience chamber.¹³⁷ Other bedding trenches along the outer edges of the courtyard defined paths parallel to the colonnades. There is no evidence of the types of plants associated with these bedding trenches; however, box, a common plant in antiquity for defining walkways, has been replanted in some of them. At the eastern edge of the courtyard planting pits and postholes suggest trees and perhaps shrubs against a trellis. Because only a single planting pit was found within the large, rectangular area at the north defined by the bedding trenches, the excavator concluded that it was probably a grass lawn.¹³⁸ Ceramic pipes beneath the original surface of the courtyard likely ran from a water storage tank at the northwest corner to a pool in the entrance hall and perhaps to small semicircular basins set into the box hedging. No other decorative elements have been surmised save for a single sculpture

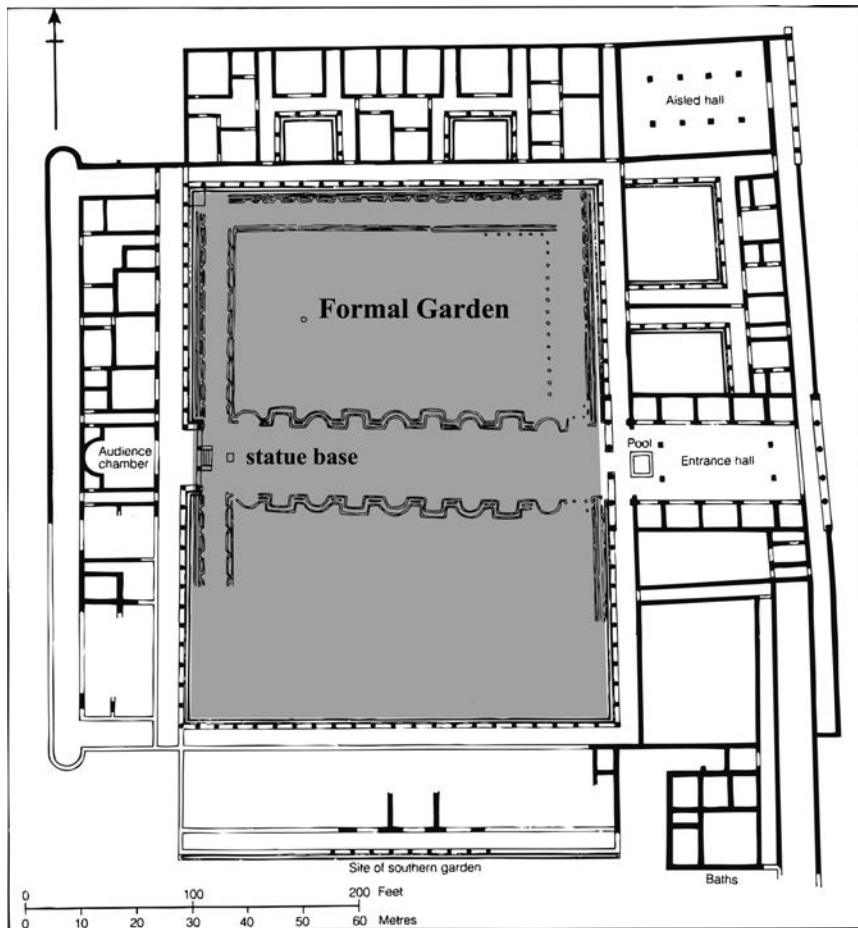


Figure 3.15 Roman Palace, Fishbourne, West Sussex, plan, modified from Cunliffe 1998, 51, fig. 15.

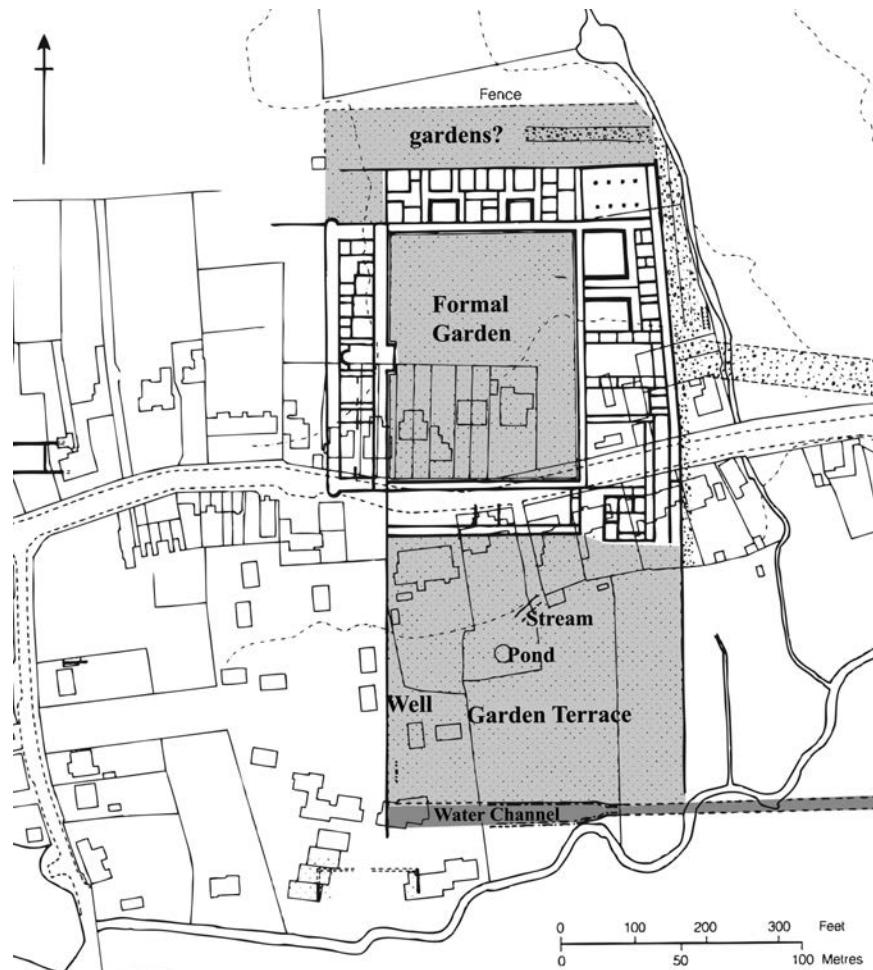
that likely stood on a preserved base in front of the assembly hall as a focal point at the end of the central path. As Cunliffe observed, this garden was a “show-piece, there to set off the building to the wonder of visitors and demonstrate to second generation provincials the sophistication of Roman culture.”¹³⁹

The planting beds differ from the broad central east-west corridor bordered by mirror-image hedges to the narrower west path flanked by complex and different patterns of plantings. The opposite east path appears not to have been bordered by a hedge along the north but instead it may have been planted with small herbaceous flowers. Furthermore, beside the east colonnade may have been rose bushes or

other plants climbing onto lattice-worked trellises, and 10.6 meters in front of this colonnade were likely fruit trees that were trained along timber frames. Finally, the terrace wall of the west wing, raised some 1.5 meters above the ground level of the garden, was plastered and painted with images of vegetation against a uniform deep green background that must have effectively blended with the actual plants, camouflaging the wall and visually increasing the size of the garden.

South of the villa is an artificial terrace (about 100 m long) with views of the sea (Figure 3.16).¹⁴⁰ Unlike terraces associated with many of the villas on the Bay of Naples, this one at Fishbourne has survived. An artificially created “natural”

Figure 3.16 Roman Palace, Fishbourne, West Sussex, plan, modified from Cunliffe 1998, 102, fig. 52.



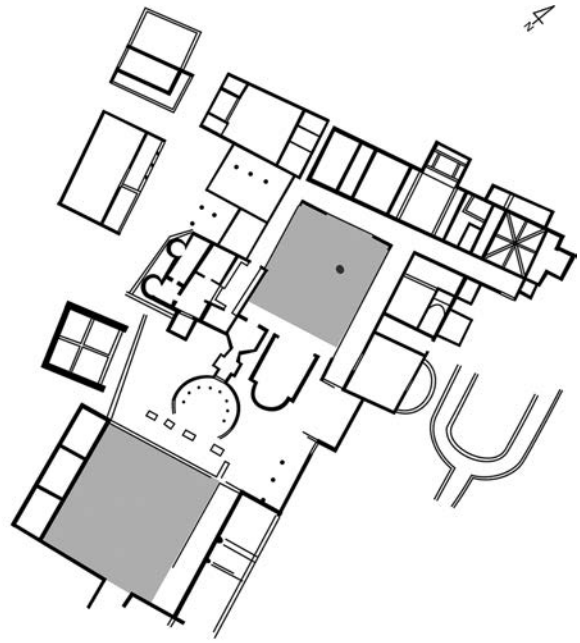
garden, it had a meandering stream flowing into a constructed pool near the center; the arrangement of its bedding trenches and planting pits suggest random plantings. No doubt, the garden was intended to look like a natural landscape that sloped down to the sea, where boats could have docked, allowing newly arrived visitors a view of the villa and inhabitants of the villa reciprocal views of their visitors. The terrace at Fishbourne is similar to other constructed landscapes, such as those of the Villa of Livia and the Domus Aurea, in the manipulation of nature as an expression of power. Controlling and remaking nature as one saw fit was a way for Romans, either as a group or as

individuals, to articulate their power over nature and within their own society.¹⁴¹

In addition to the decorative gardens at Fishbourne, there were possibly two less formally planted areas that likely were kitchen gardens, introduced to Britain by the Romans shortly after their arrival:¹⁴² one in the northwestern sector of the residence and another to the northeast of the villa, along the main approach, where *ollae perforatae* were found.¹⁴³ The gardens of Fishbourne clearly served the needs of its owner, who is often thought to have been an important member of the local, “Romanized” British elite.¹⁴⁴ The distinctly Roman style of the gardens and architecture of this villa, along with

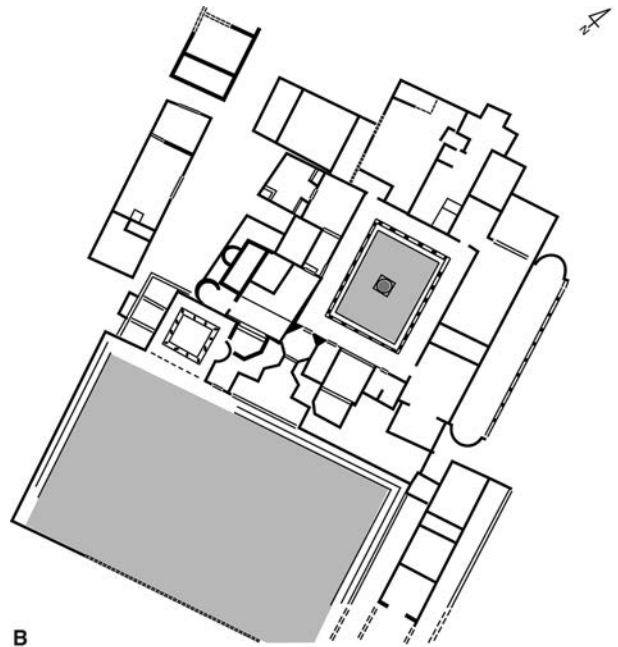
its mosaic pavements of geometric patterns and themes from classical mythology, strongly suggest the owner's desire to express a Roman lifestyle and cultural outlook.¹⁴⁵

Roman villa gardens are well attested throughout all of Rome's provinces. The villa at Lalouquette in France is another good example of the role of gardens in a provincial villa.¹⁴⁶ It had numerous phases, beginning from the late first century AD and stretching into the late fourth or early fifth century AD. A defining feature that remained throughout the villa's history was a central, peristyle courtyard, probably containing a garden, with reception rooms opening onto it (Figure 3.17A; Figure 3.17B); this courtyard provided access to the major wings of the house. It is also noteworthy that, from its second phase, another garden court was added at the southern part of the villa, making the gardens a major component of the villa in terms of square meters. This garden may have existed in some form or another until the end of the villa's life. The presence of two good-sized gardens suggests that they and the activities that they accommodated were integral elements of the provincial villa. The inclusion of the gardens within the architecture of the villa shows marked similarity to those found in Italian villas, such as the Villa of the Papyri. The surroundings of this villa have not been explored, so that we cannot comment on its relationship to its setting; however, two other examples from Gaul suggest that the topographical setting of the Romano-Gallic villa was just as important as it was in Italy. The residence of the Villa of Arnesp (8,400 m²) overlooked the right bank of the Garonne toward the Pyrenees, and the villa at Montmaurin has views



A

Figure 3.17A Villa at Lalouquette, Aquitaine, France, second phase, plan, modified from Balmelle 2001, 102, fig. 40b.



B

Figure 3.17B Villa at Lalouquette, Aquitaine, France, third phase, plan, modified from Balmelle 2001, 103, fig. 40c.

along the main axis of the residence that were aligned with the Pyrenees, a most dramatic vista.¹⁴⁷

These examples show that the Roman villa arrived in the western provinces soon after their conquest. While Fishbourne is exceptional for its size, decor, gardens, and early date, Roman villas and their gardens soon became prominent landmarks in the landscape of the northwestern provinces. The much-debated question of who owned these residences continues to endure. Did members of the local, pro-Roman elite or did elite Romans, who settled in the provinces, construct and inhabit them? We know little about the owners of these villas anywhere in the empire; however, it is reasonable to assume that they were both local elites and affluent Roman settlers. Villa construction was most likely a reflection of the local elite's acceptance of Roman rule and cultural institutions, as was the Roman settlers' expression of their Roman identity in what had been non-Roman territory.¹⁴⁸ The creation of designed gardens set in colonnaded courtyards that served as the heart of the villa is an example of this cultural exchange on a micro level. Yet, the introduction of local elements, like local plants, suggests that the Roman villa garden was not accepted without modifications but was adapted to suit local conditions, taste, and needs. Thus, the Roman villa garden, like other Roman gardens, is another index that allows us to observe complex, cultural exchange and change across the empire.

Gardens were also prominent spaces of villas and palatial residences in North Africa and the Eastern provinces. The villas of North Africa generally fall into two classes: productive farmsteads and opulent residences, both of which contained gardens.¹⁴⁹ The former were set in productive environments, like that of Boscoreale; they had large cereal fields

and/or olive groves that produced the grain and olive oil that fed much of the Roman Empire. Villas such as Henscir Sidi Hamdan in Tripolitania exemplify the producing villa.¹⁵⁰ While little of the environs of these villas has been explored to determine how their land was used, the rich tradition of North African mosaics suggests that hunting and the productive landscape were part of villa life and that there was a blurring between these two broad types of villas.¹⁵¹ In contrast to the producing farmsteads were luxurious residences, generally located near towns or along the seaside.¹⁵² The maritime villa at Silin near Lepcis Magna in North Africa had impressive architecture and was up to date with current villa fashions, as its largest garden, designed as a circus-garden, demonstrates (Figure 3.18).¹⁵³ The landscape associated with such North African maritime villas has never been explored in depth, but its position along the shore recalls the locations of villas on the Bay of Naples, suggesting that production was not so important as setting.

The brief examination of these examples highlights the diversity and spectrum of villas, their gardens, and their environs in the province of North Africa. The nature of these villas differed from that of other provinces, based on the clearer division between their producing and non-producing aspects. That said, the architecture of the North African villas remained identifiable as Roman, as were their gardens. The circus garden, as seen at Silin, was a garden design popular throughout the Roman Empire beginning in the late first century AD. Furthermore, the producing landscapes captured repeatedly in the mosaics of North African villas and houses until the end of the Roman

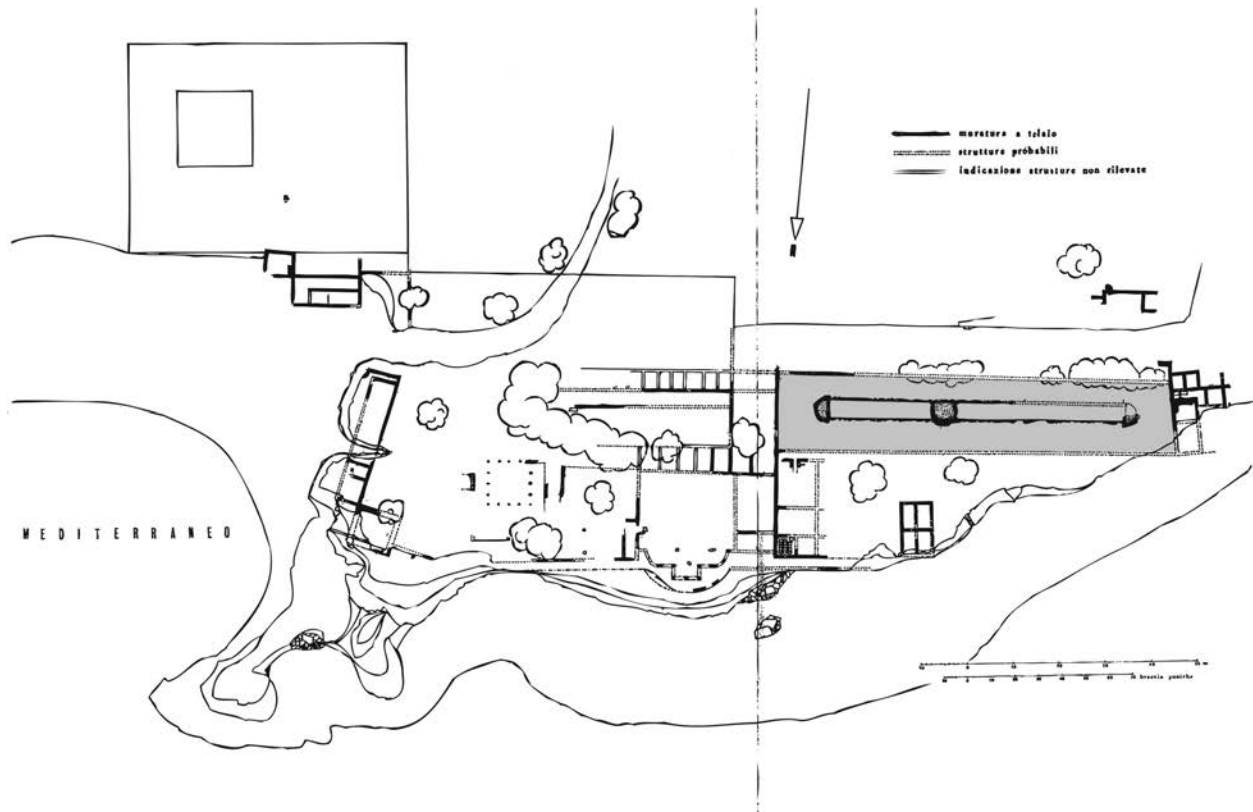


Figure 3.18 Villa at Silin near Lepcis Magna, North Africa, plan, modified from Salza Prina Ricotti 1970–1, pl. 3.

Empire suggest that this landscape was again something that the Romans and/or local, pro-Roman elites enjoyed viewing, be it the real thing or a mosaic representation of it.¹⁵⁴

Palatial villa gardens were also to be found outside Rome. One of the great builders of the early Empire was King Herod the Great of Judaea. In Jericho, Herod constructed his Third Winter Palace on both sides of Wadi Qelt (Figure 3.19A; Figure 3.19B).¹⁵⁵ The Winter Palace bears the hallmarks of Roman architectural and horticultural influence, reminding us that the exchange between east and west was not a one-way route.¹⁵⁶ Like many Roman palaces and villas, it exploited both its climate and its placement in the landscape. The palace was used seasonally to take

advantage of the flooding of the wadi after the heavy winter rains. The villa also exploited its physical setting; although it did not have commanding views like Herod's other palaces in Jericho, its placement on both sides of the wadi enabled it to be transformed from a desert abode into a *villa marittima*, at least for part of the year.¹⁵⁷ In terms of its construction techniques, architecture, decor, and position in the landscape, the palace had much in common with the elite villas of Rome.¹⁵⁸

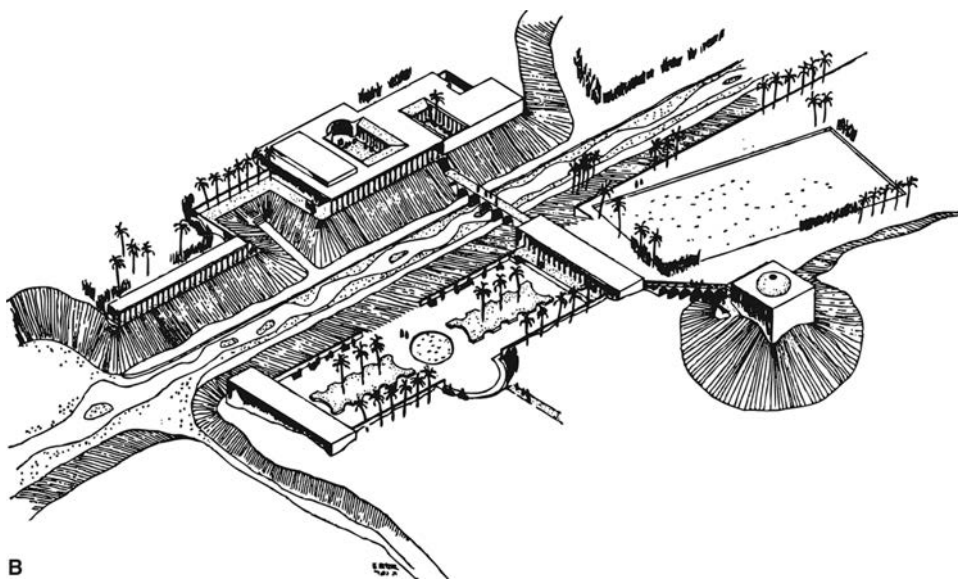
Its gardens also reflect Roman influence. Enclosed courtyard gardens were important parts of the north wing. The most noteworthy of these was the Ionic peristyle garden, which was planted in the orderly fashion of the gardens of Rome.¹⁵⁹ *Ollae perforatae* were also used here, as

Figure 3.19A Third Winter Palace, Jericho, the West Bank.



A

Figure 3.19B Third Winter Palace, Jericho, the West Bank, axonometric reconstruction after Netzer 1990, fig. 12.



B

they were in many Roman villa gardens of the time. The plants, however, were not only indigenous but were also of particular importance to Judaea. In this courtyard balsam, which was closely associated with the kings of Judaea and could only be grown in this part of the world, may have

been cultivated.¹⁶⁰ In the ancient world balsam was extremely valuable, prized for its scent and used for incense. In addition, the balsam grove was also aesthetically pleasing; in this respect it resembled many of the producing gardens of Roman villa gardens. While the garden was

similar in form to many Roman gardens of the period, its plantings were Roman not so much in type as in spirit, reflecting a blending of local and Roman traditions.

Opposite on the southern bank were three wings of the palace: the sunken garden, a large pool, and a tell, or large, earthen mound. The sunken garden (145 × 40 m), which has not been explored in depth, used planting pots and had long colonnades to frame views of the garden, the wadi, and the north wing of the palace, as many of the villas of Roman Italy. The *cavea*-like structure in the center of the southern wall recalls the spectacle architecture found in many villa gardens in Roman Italy.¹⁶¹ The large pool, measuring 90 × 42 meters, located to the east of the sunken garden and tell, was probably used for swimming and boating. The use of pools, which was very popular in Roman villa gardens, is grounded in the traditions of the Near East. The manipulation of water, a scarce resource at the best of times in this region, was a traditional display of power.¹⁶²

Herod's Third Winter Palace integrated local and Roman elements to create a palatial complex that suited the tastes and needs of King Herod. Likewise, its gardens and landscaping were both Roman and local. The use of water and a pool owes much to the local, Near Eastern horticultural and architectural traditions, while the use of planting pots and spectacle-like architecture in a garden speak to the influence of the Roman villa garden. Like other provincial villa gardens that we have seen in Roman Britain, Gaul, and North Africa, the gardens, pools, and landscaping of this complex reflect a mixing of local and Roman traditions to create a horticultural effect specific to each province.

CONCLUSIONS

This chapter, as a limited and selective survey of Roman villa gardens, can in no way do justice to the subject. However, a few worthwhile points have emerged. Most fundamentally, there is no single category such as a "Roman villa garden." From the second century BC onwards, Roman villas had a range of gardens, from simple productive gardens to elaborately designed landscapes. These spaces fall into two broad categories: gardens and landscapes of production and those of allusion. The productive garden, indigenous to Rome and central Italy, was the original kitchen garden of both *domus* and villa, and it remained an important element in the tradition of gardens in the Roman villa until the end of the Empire. Productive gardens were often nestled within the architecture of villas or adjoined them. The formally planted peristyle courtyard, enclosed within the villa, whose origin ultimately lies in a fusion of the Italic garden traditions with the gardens of Hellenistic palaces, and in the gymnasium-inspired garden, also became a key element of the Roman villa garden tradition. Many Roman villa gardens and landscapes were constructed as evocative, culturally charged environments. The larger, designed landscapes, like the grotto at Sperlonga or the Scenic Canal at Hadrian's Villa, allowed Roman villa owners incredible freedom to create unique and varied spaces for their enjoyment that were rich in cultural allusions. These landscapes are exceptional for antiquity and distinguish Rome's garden traditions.

During the last century BC and first two centuries of the Empire, the repertoire of

the villa garden and landscape continued to expand. Not only did water become a prominent feature of villa gardens and landscapes, but the Romans also started borrowing and manipulating their own public and urban architecture and gardens within the sphere of the villa. Imperial villas, such as Hadrian's Villa, had different types of gardens to accommodate any and all of the needs of the emperor. Within Rome, even for the emperor, however, there were limits to architectural and horticultural experimentation; recall that the artificial villa landscape of Nero's Domus Aurea was the focal point of contemporary literary attacks.

In order to achieve many of these culturally rich effects, the Romans created their gardens in accordance with a number of identifiable principles of design. We see a preference for order over chaos, for the designed over the natural. Roman villa gardens were often bounded by architecture and full of organized plantings; their walks and planting patterns were specifically arranged to maximize the effectiveness of each space for the viewer or the walker. Likewise, even naturalistic landscapes, as embodied by Fishbourne's seaside terrace, were constructed. The Romans preferred to design and order their villa gardens; this gave them control over nature and allowed them to create gardens and landscaped environments suitable to their architecturally complex villa residences. Gardens were not only placed within the architecture of a villa, but the larger designed landscape, so often overlooked, was also an important "garden" in the Roman villa. Furthermore, each

province developed its own local garden and landscape traditions and fused these with the traditions of the Roman villa garden as developed in Italy to create unique horticultural expressions.

The Romans manipulated nature for their purposes. Creating gardens of allusion was a key way to enhance the cultural sophistication of the villa's owner. Together, carefully chosen plants and sculptures, combined with water, in an appropriate architectural setting could elicit thoughts of a time and place removed from the present. One could stroll in a philosophical school or gymnasium without ever leaving one's villa, as at the Villa of the Papyri. At Sperlonga, where water and sculpture evoked Odysseus' epic travels, those dining in that elaborate setting experienced his journey. The result of this cultural mixing and innovation in the gardens of the Roman villa was the creation of one of the most original, sophisticated, diverse, and enduring garden types in ancient Rome's horticultural tradition.

Lastly, whether it was a producing garden associated with a *villa rustica*, such as at the Villa Regina at Boscoreale or the central courtyard garden and the gymnasium-inspired garden of the Villa of the Papyri, gardens were integral parts of the Roman villa. Often they were the heart of the villa, providing access to the main rooms and directing people into and out of wings and suites. This reminds us that architecture and garden were not separate things, but rather were parts of a whole; both were important building blocks in the construction of Roman space.

Chapter 4

PRODUCE GARDENS

Wilhelmina F. Jashemski

THUS FAR WE have looked at pleasure gardens in the *domus* and villa. In this chapter we take up the gardens that supported the economy and daily life. We begin first with kitchen gardens, then the larger produce gardens – vineyards, orchards, and commercial flower gardens – examining the evidence for each type of garden in the Vesuvian sites, elsewhere in Italy, and throughout the provinces. We note both the archaeological evidence and the information in the literary sources. The most detailed discussions are found in the agricultural manuals of Cato, Varro, and Columella, and Pliny the Elder’s *Natural History*. The oldest of the three agricultural manuals, the *De agricultura* written by the farmer-statesman Cato (234–149 BC), is a loosely organized series of shrewd and pithy comments, based on practical experience. Varro (116–27 BC), known as Rome’s greatest scholar, began his *De re rustica*, a longer and more polished work, when he was eighty years old, as a practical manual for his wife Fundania, who had just bought a farm. The longest and most comprehensive of the agricultural manuals was written by Columella, a native of a *municipium* in southern Spain (present-day Cádiz), who lived in the first century AD.

KITCHEN GARDENS

The kitchen garden was crucial to the ancient Romans, for fruits and vegetables were an important part of their diet. Cato, Pliny, and Columella discuss the siting, planting, and cultivation of the kitchen garden, listing in detail the plants to be raised. Columella devotes the whole of Book 10 to the kitchen garden, writing it in verse, as an addition to Vergil's *Georgics*, which does not mention kitchen gardens. Columella discusses the proper soil and irrigation, and gives advice on digging, manuring, and laying out the various beds. He then names sixty plants, including many herbs, that should be planted. The second half of Book 11 is a calendar of activities for the husbandman, giving considerable attention to work in the kitchen garden, which was labor intensive and thus should be located conveniently near the house with a nearby source of water. Kitchen gardens were meant to support the family not only for their own sustenance but also for profit. A kitchen garden large enough for a surplus of fruits and vegetables could be a source of revenue, particularly if close to a town. In addition, Cato stresses the advantage of growing flowers, naming many that should be planted, to be sold for garlands.¹ Indeed, Pliny the Younger mentions two well-stocked kitchen gardens at his Laurentine villa.²

At Pompeii we fortunately have archaeological evidence for actual kitchen gardens. The earliest one identified was in the House of Pansa (vi.4),³ excavated in the early nineteenth century. A plan shows a large rear garden systematically laid out in rectangular plots separated by paths

approximately 2.5 meters wide, which also served as irrigation channels (Figure 4.1). The water reservoir in the north corner was surely used to support the garden. It is laid out in precisely the way Pliny recommends for a kitchen garden – plots

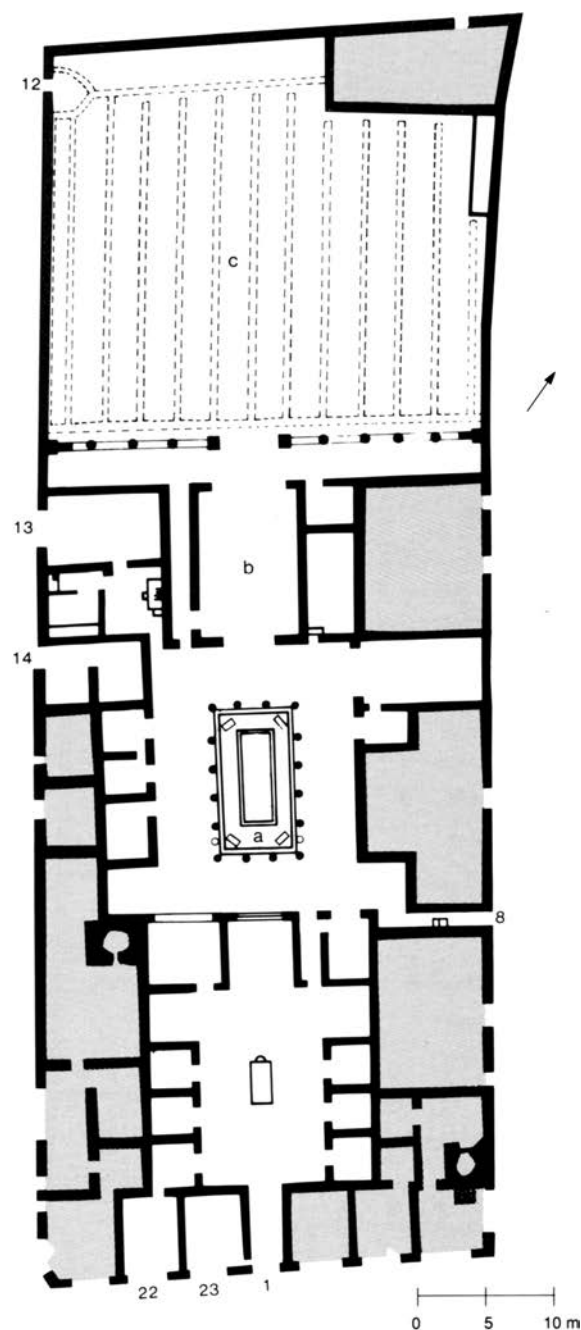


Figure 4.1 House of Pansa, vi.6, Pompeii, plan 44, Jashemski 1993.

bordered with sloping banks and surrounded "with a furrowed path to afford access for a man and a channel for irrigation."⁴ Columella gives a more poetic description:

... then let him take
The shining hoe, worn by the soil, and trace
Straight, narrow ridges from the opposing
bounds.
And these across with narrow paths divide.
And when the earth, its clear divisions
marked
As with a comb, shining, from squalor free,
Shall claim her seeds.⁵

The large vegetable garden at the rear of the house of M. Epidius Rufus (IX.1.20/30) on the Via dell'Abbondanza at Pompeii was laid out in similar fashion with paths the same width (2.5 m) as in the garden house of Pansa.⁶ Maiuri also identified a kitchen garden in the House of the Menander (I.10.4).⁷

I excavated two smaller kitchen gardens in the lower garden in the House of the Ship Europa (I.15) at Pompeii,⁸ also laid out in furrows separated by irrigation channels. The roots of vegetables were too small to leave cavities, but a variety of vegetables were likely to have been grown. There were preserved, however, twenty-two irregularly spaced root cavities of small trees. Although trees in kitchen gardens are not mentioned by ancient writers, they may have been common, just as they are in kitchen gardens of modern Pompeii, which are laid out exactly as ancient ones.

I also excavated a small kitchen garden in the *villa rustica* at Boscoreale in the Località Villa Regina.⁹ It was located near the farmhouse, to the right of the

main entrance. A cistern in the middle of the garden provided the necessary water, as Pliny recommended. The garden was divided into small plots, which were separated by irrigation channels that served as paths.

Two kitchen gardens were found at the villa at Settefinestre, north of Rome – one, on the lower terrace, identified by its furrows.¹⁰ A second kitchen garden, surrounded by a rectangular wall, was found next to the turreted garden. It was irrigated by rainwater distributed in channels from the upper garden.

Evidence for the specific form of gardens in the provinces is still very limited, although the archaeobotanical evidence is growing rapidly. Knörzer, after analyzing plant remains from wells, latrines, pits, and other contexts in various *villae rusticae* in the Lower Rhine region in Germany, was able to identify many vegetables and herbs that might have grown in kitchen gardens. Most of these plants first appear in the archaeobotanical records of the Lower Rhine region in Roman times.¹¹ An area in the *villa rustica* at Wiesbaden-Biebrich, Germany has been interpreted by the excavators as a kitchen garden.¹² Other examples are in a *villa rustica* in Voerendaal in the Netherlands and at a farmhouse in Wetter Bad, Germany.¹³ In a corridor house at Carnuntum, in the Roman province of Pannonia (modern Austria), the open courtyard at the back of the house may have been a kitchen garden.¹⁴ "The fine garden soil" in an area at a corridor house at Winden am See in Pannonia has been identified as probably a kitchen garden.¹⁵

At the palatial Roman villa in Fishbourne, England, the convenient location, soil, and water supply suggest a

kitchen garden was located in the external angle between the west and north wings.¹⁶ At Bancroft Villa in Milton Keynes, Buckingham, enclosures attached to farm buildings “have yielded plant remains suggestive of kitchen gardens.”¹⁷ There is also evidence for a kitchen garden in the nearby farmstead at Wavendon Gate.¹⁸ Areas at the Roman villa at Darenth, in Kent, the villa at Frocester Court, and at a country house in Latimer have been interpreted as kitchen gardens.¹⁹ Along the northern border of Britannia, soldiers grew fresh vegetables in small gardens at Wallsend and Housesteads on Hadrian’s Wall, and at Croy Hill and Rough Castle on the Antonine Wall.²⁰ These gardens were small irregular plots located outside the walls of the forts.²¹

Most of the forty squares in the rustic pictorial mosaic calendar from Saint-Romain-en-Gal, now in the Musée de Saint-Romain-en-Laye, depict gardening and viticulture. One pictures workmen sowing, probably beans, in a kitchen garden (Figure 4.2). Many other mosaics picturing gardening and viticulture are found in this area famous for its gardens and vineyards.

Moving to the Eastern Desert of Egypt, archaeobotanists working at Roman Berenike, an important trade port on the Red Sea coast in southeast Egypt, and at Shenshef, a nearby mountain village, report there were kitchen gardens at these ancient sites. Many of the plants identified among the excavated vegetal material would have been grown in a

Figure 4.2 Workers sowing, Saint-Romain-en-Gal, detail of mosaic floor, now located in the Musée de Saint-Romain-en-Laye.



kitchen garden. The kitchen produce from Berenike is extensive and includes plants well known in the Mediterranean: garlic, almond, apricot, caper, carob, chick pea, coriander, hazel, cucumber, fig, fennel, barley, date palm, walnut, lentil, flax, olive, umbrella pine, plum, peach, vetch, faba, and other varieties of bean. The site also gives insight into plants of the region, as well as exotic plants grown there, if not widely elsewhere. René Cappers²² gives extensive treatment to the presence of the coconut palm and black pepper, beet, saffron, and mangrove. The rosary pea (*Abrus precatorius*), however, being poisonous, must have been purely decorative.²³ Nile Acacia (*Acacia Nilotica*) produces a reddish gum and large pods, both of which were used for tanning and dyeing.²⁴ Another kind of local acacia, twisted acacia (*Acacia tortilis*), identified among the plant remains, was used for fencing of gardens.²⁵

Similarly, at the Roman quarry site of Mons Claudianus archaeobotanical research, together with texts written on ostraca, show conclusively that kitchen gardens provided fresh vegetables to the mining community there, particularly cabbage, beet, lettuce, chicory, cress, mustard, asparagus, and turnip. Despite the harsh desert conditions, wells provided water and the community ate a wide variety of grains, legumes, fruits, and vegetables. Sidebotham reports the remains of a garden at Sikai.²⁶ There plants were grown in dozens of small stone boxes, without bottoms, which were set in the ground. Dessicated roots were found in some boxes, though identification was not possible. Impressions in concrete suggest that pipes brought water to these boxes.

Kitchen gardens were at times attached to tombs.²⁷ Although the archaeological evidence for kitchen gardens at tombs in Italy is meager outside of the Vesuvian sites, the information about the vegetables and flowers to be raised in the kitchen garden found in Pliny's *Natural History* and in the three agricultural writers reflects in general what would be raised in a good part of Italy. Greek papyri document intensively productive gardens in the Alexandrian Necropolis of Egypt.²⁸

VINEYARDS

The economic value of the grape for use in winemaking was discovered over two thousand years before the Romans developed their own viticulture. Asia Minor, the Levant, Greece, and North Africa all had well-developed economies in the growth of grapes and the trade of wine by the time of Roman conquest. Abundant archaeological remains, from wine presses, tools, and artistic representations to the carbonized and mineralized remains of grape pips, support the many references from ancient texts. However, few archaeological remains of the vineyards themselves have been identified.

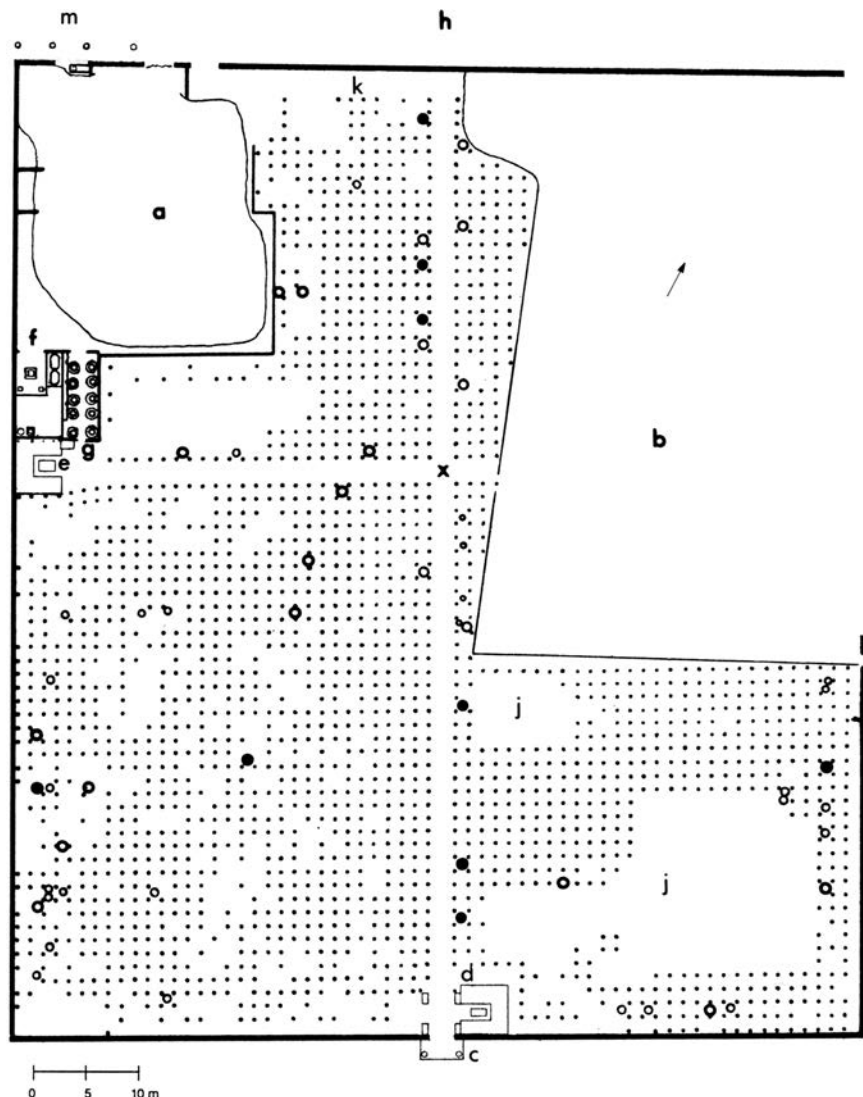
Because of the way the Campanian sites were preserved by the eruption of Vesuvius, our most detailed information about Roman vineyards comes from this area. The many vineyards that I have excavated give us detailed information about Roman viticulture. All but one of these vineyards are located within the city walls of Pompeii, attached to houses, and they were of various types. The casts that we made of the ancient roots reveal not only their actual size but also the planting

pattern. We found a large, formally laid out, commercial vineyard and some of a less formal nature. The countryside was dotted with vineyards. The grape was a major part of the Italian economy, but the vineyard at the *villa rustica* at Boscoreale is the only villa vineyard that has been excavated.

The large city block (11.5) across from the amphitheater at Pompeii had been known for over two hundred years as the Foro Boario (cattle market). We discovered, however, that it was a large vineyard (Figure 4.3).²⁹ Two paths crossing at right

angles divided the vineyard into unequal plots. The reason for this irregular arrangement appears to be because they were laid out with respect to external considerations – the north-south path is on axis with the entrance of the nearby amphitheater, and the east-west path led to a *triclinium* just outside the door of a building where wine was made. Columella says that vineyards should be divided by foot-paths for the use of the laborers in carrying stakes, repairing the frames, and tending the fruit.³⁰ He recommends that vineyards be divided into areas of one-half a *iugerum*

Figure 4.3 Large vineyard, 11.5, Pompeii, plan: (a,b) unexcavated areas; (c) entrance; (d,e) *triclinia*; (x) intersection of paths; small dots indicate grapevine roots; small circles, small tree roots 10 centimeters or less in largest dimension; larger circles, medium tree roots; large dark circles, large tree root cavities 30 centimeters or more in largest dimension, Jashemski 1993, plan 28, p. 89.



(approximately one-fourth of a hectare), which is approximately the size of each quarter of this Pompeian vineyard.

After excavating an actual vineyard, it was of great interest to see the extent to which the proprietor had followed practices recommended in the ancient manuals and to what extent they were applicable to the Pompeii area. We found that the vines in this large vineyard were planted almost exactly four Roman feet apart, indicating they were cultivated by hand. According to Columella, vines should be at least five feet apart if cultivated by hand, at least seven if cultivated by plow and oxen. Pliny was perhaps drawing on his familiarity with this region when he says that in rich soil (such as that of the Vesuvian region) vines should be planted four feet apart.

The planting pattern in this vineyard is strikingly similar to that in vineyards in the Pompeii area today. Even the three or four depressions around each root cavity were recognized by the workmen as similar to the depressions that they put

around their own vines to hold water. These depressions as well as the close spacing of the vines further indicated that this vineyard was cultivated by hand. Furthermore, beside each root cavity we found the cavity of a stake (Figure 4.4).

Along the paths were large cavities of posts (much larger than the stakes in the vineyard) and beside each post the cavities of two vine roots (Figure 4.5A). The nails found near the postholes would have been used to fasten the frames of an arbor-covered passageway, similar to those in vineyards in the Pompeii region today (see Figure 4.5B). The posts and stakes might have been of chestnut, preferred by the ancient as well as modern vintners because of the ease with which it could be worked, its "obstinate durability," and its resistance to decay.³¹ Poplar and willow trees were planted in antiquity to furnish withes for tying the vines, as they still are used today (Figure 4.6A; Figure 4.6B).

The question remains as to how the vines were staked. Pliny lists six methods



Figure 4.4 Large vineyard, II.5, Pompeii, cavities left by stake and vine roots.



A

Figure 4.5A Large vineyard, 11.5, Pompeii, the north-south pathway leading toward the amphitheater.



B

Figure 4.5B Arbor-covered pathway in modern vineyard near Pompeii.



A

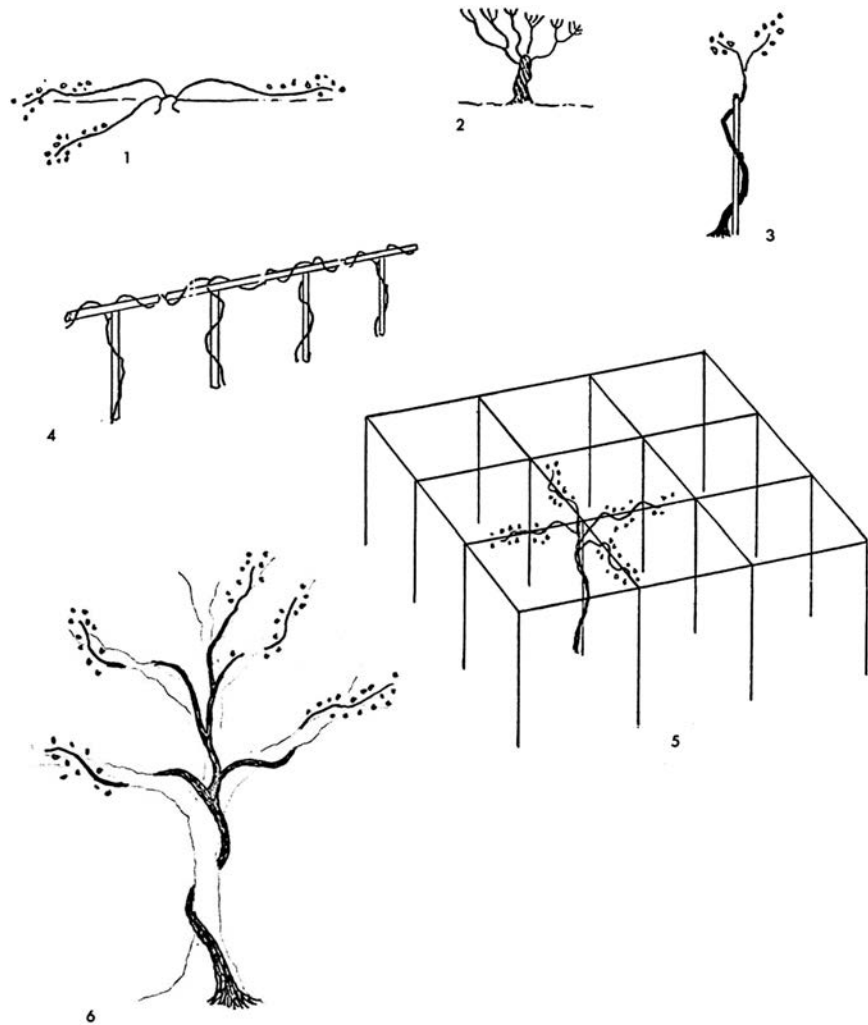
Figure 4.6A Vine tied to a chestnut stake with a willow withe in a modern vineyard near Pompeii.



B

Figure 4.6B Vine tied to a chestnut stake with a poplar withe in a modern vineyard near Pompeii.

Figure 4.7 Six methods of training vines: (1) Branches spread on ground; (2) Standing alone without support; (3) Propped with stake without support; (4) Propped with support with crossbar (*Vitis iugata* or *cantabricata*); (5) Trellised with rectangular frame (*Vitis compluviata*); (6) Wedded to a tree (as in an *arbustum*).



of training vines (Figure 4.7).³² In the first two methods the vines were not staked – their branches spread out on the ground or they stood alone as a tree, such as those in Spain, which were low growing and without props.³³ These methods were not popular in Italy, where vines were staked, propped up with or without a crossbar (Methods 3 and 4). Ancient writers, however, pay little attention to vines with a single stake, but they do recommend yoked vines arranged in rows for cold, rainy areas.

In the fifth method the vines grew on a trellis with a rectangular frame (*Vitis*

compluviata), which was the system used in this vineyard. Varro and Columella give very specific directions for this method of vine training. Varro³⁴ says vines trellised in a straight line are found in the district of Canusium, but vines yoked lengthways and sideways in the form of a *compluvium* is the practice generally in Italy. Columella gives detailed instructions for training and pruning vines in this manner.³⁵ Both writers stress the superiority of this method of training vines. Spread out in four directions, the vines not only remain anchored better and are more stable after storms but they also produce the most fruit. In hot,



Figure 4.8 House of the Vettii, iv.15.1, Pompeii, cupids gathering grapes, fresco after an early twentieth-century postcard, Poligrafico-Napoli.

dry areas the shoots filled the frames and formed a roof that shaded the soil. This method is used in the Pompeii area today, but the vines often are not as precisely planted as Columella recommends.

The Pompeians were also familiar with the sixth method of training vines listed by Pliny, wedding them to trees. In Campania vines were often wedded to poplars, as they still are today. Cupids are shown gathering grapes from vines supported by trees in a small painting from the House of the Vettii (Figure 4.8).

Columella recommends that the frames should be about five feet above the ground, never more than seven or less than four.³⁶ Varro says the height of the vineyard should not exceed the height of a man.³⁷ According to Pliny, the richer the soil and the more level the ground, the greater the height of the frames required.³⁸

There were also trees in the Foro Boario. We found evidence for at least fifty-eight; there was a row of widely spaced trees around the edges of the vineyard, usually between the second and third row from the wall, a few planted at random throughout the vineyard, and widely

spaced trees planted between the first and second rows of vines on each side of the path. This vineyard had far more trees than Columella recommends.³⁹ He says the fig, pear, and apple could be planted, but only at the ends of the rows on the north, where they would not shade the vines. Yet, as our excavations in the Pompeii area have shown, trees were generously planted in vineyards. One modern vineyard we visited, which was much like ours even to the arbored pathway, had thirteen different species of trees. All of them, except the loquat, a modern introduction from Japan, were known to the ancient Pompeians and could have been raised in an ancient vineyard.

Unfortunately, none of the slightly carbonized woody material found in the root cavities in the large vineyard was sufficiently well preserved for identification. We did find, however, two carbonized olives, which may identify one type of tree in the vineyard. The carbonized bean found in the vineyard may indicate intercultivation, a common practice in antiquity and also today. I will never forget my surprise when I first saw a friend's garden

vines growing under trees, and under the vines were corn, tomatoes, beans, and other vegetables. So fertile is the soil, so strong the sun in Campania.

The vineyard had the same equipment for making wine usually found in country villas. The small building in which the wine was made had fittings for a winepress similar to the one that has been restored in the Villa of the Mysteries (Figure 4.9). Two small holes in front of a low barrier held the posts at the end of the windlass used in raising and lowering the press beam. The smaller holes at the back of the room held the stationary part of the press beam.

The vintner probably did a thriving business serving guests from the amphitheater



Figure 4.9 Villa of the Mysteries, Pompeii, restored wine press.



Figure 4.10 Large vineyard, 11.5, Pompeii, bones split for marrow found in the vineyard with tool marks visible.

at two masonry *triclinia* in the vineyard (see Figure 4.3). We found fifty bones and two teeth nearby. Henry Setzer of the Smithsonian Institution found that eleven bones had cleaver marks, evidence that the bones had been split for marrow, which was considered a delicacy (Figure 4.10). This explained why the early excavators called the site the *Foro Boario*. They had found bones near the *triclinium* at the entrance to the vineyard and mistook this area for the Cattle Market.

But we were to find other vineyards in the city. A good part of the lower garden in the House of the Ship Europa (I.15)⁴⁰ was laid out in a vineyard similar to the planting pattern in the large vineyard (11.5). It was precisely planted, the vines four and one-half feet apart (Figure 4.11). This is slightly wider than those in the large vineyard, which were four feet apart, but within the range recommended by the ancient agricultural writers for rich soils. This was a young vineyard, not yet old enough to be staked. The vineyard in III.7 to the north showed a similar planting pattern.⁴¹ The root cavities were

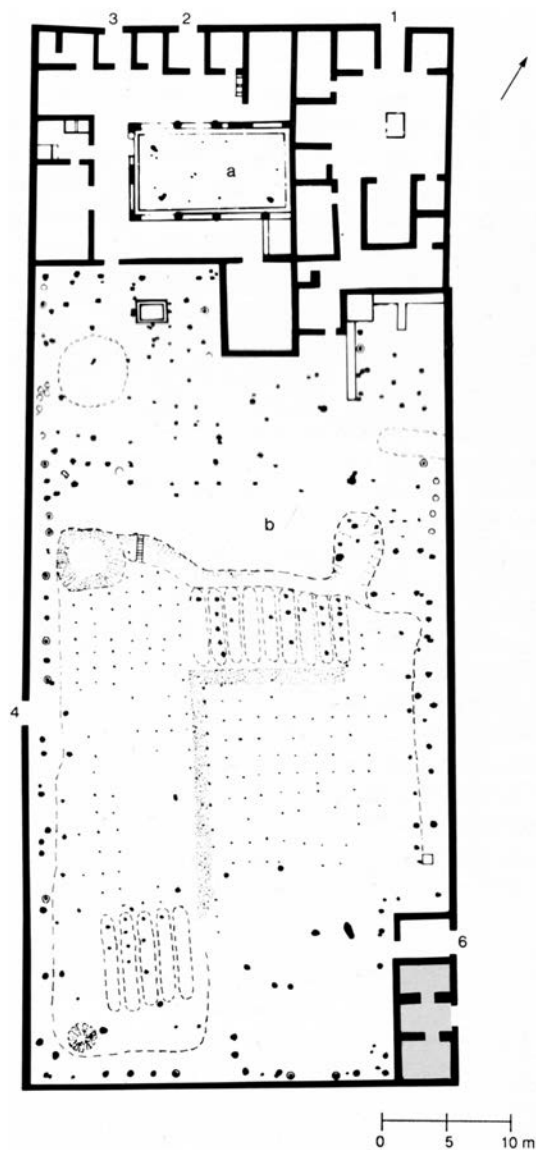


Figure 4.11 House of the Ship Europa, 1.15, Pompeii, Jashemski 1993, plan 18, p. 61.

approximately four Roman feet apart, but they were not as precisely planted as the two previous vineyards. There were trees planted throughout this vineyard.

In the vineyard in the Caupona of the Gladiators (1.20.1) we found that the vines had been very informally planted with one stake for several vines, and also supported by trees, as they often are in vineyards in the area today.⁴² Here the ripened grapes were trodden by foot in a small building.

The ancients maintained that the wine made from juice extracted in this way was much better than that extracted by a press, which bruised the seeds, a belief that my workmen vehemently shared.

In the vineyard to the west of the Great Palaestra (11.9.6) juice was extracted in the same way.⁴³ Built against the front of the house, which had been turned over to winemaking, was a small raised treading floor, where the grapes were pressed by foot (Figures 4.12A; 4.12B). The juice could also be extracted simply by treading on the grapes in a small portable wooden tub. This process, which is pictured on a



A

Figure 4.12A House 11.9.6, Pompeii, small raised treading floor.



B

Figure 4.12B House 11.9.6, Pompeii, small raised treading floor, detail.



Figure 4.13 Blue glass vase from Pompeii, National Archaeological Museum, Naples, inv. no. 13521.

beautiful blue glass vase found at Pompeii (Figure 4.13), produces exceptionally fine wine and is still used by many who have a limited number of vines.

We have knowledge of over forty villas on the slopes of Vesuvius. These were hurriedly and partially excavated and then covered over again, so the valuable land could be returned to cultivation. The wine and oil presses found in these villas indicate that the land had been mostly devoted to vineyards and olives.⁴⁴ The vineyard at the *villa rustica* at Boscoreale in the Località Villa Regina is the first vineyard

associated with a villa to have been excavated.⁴⁵ The vines were informally supported by both stakes and trees. Here we found thirty-four tree-root cavities, most of them in the vineyard. The carbonized olives and almonds found in the vineyard probably identify some of the trees; carbonized grapes were also found.⁴⁶

We depend largely on the written sources and the inscriptions that have survived on wine jars and amphoras for information about vineyards outside the Vesuvian area. For example, Elizabeth Tydings Will reports that she has found Pompeian amphoras in India.⁴⁷ Pliny says that of the eighty notable wines in the whole world two-thirds were produced in Italy, listing Italian wines in order of their excellence, and giving a good picture of the location of vineyards throughout the peninsula.⁴⁸

Our best archaeological evidence for the production of wine and olive oils outside the Vesuvian area is the villa of Settefinestre, to the north of Rome. These have not been excavated, but the processing areas with their basins, presses, and *dolia* have enabled the excavators to determine that grapes and olives, as well as grain, represented the principal productive crops of this villa.⁴⁹ The air photographs taken in Apulia by John Bradford during the Second World War are a valuable source about the location of vineyards in this area, for they reveal trenches for vineyards.⁵⁰

Columella points out that the vine could grow in almost every country, except where there were extremes of heat or cold.⁵¹ It can thrive, he says, on the plain as well as the hillside, in compact or loose soil, on fertile or lean soils, in wet or dry land. This was true because of the great

number of varieties available in his time. Part of the skill of the vintner lay in selecting a variety that would thrive in the land to be planted. As Columella points out, all countries and almost every district had their own special variety of vine. Most cultures had a very sophisticated knowledge of viticulture, and they adapted varieties and methods of vine training, pruning, and culture to the situation at hand.

Archaeological evidence for vineyards of the Roman era continues to emerge in the provinces, complementing written sources, inscriptions on wine jars and amphoras, and occasionally coins that boast the wine of a region. Sicily had a flourishing trade in wine long before it became a Roman province and it continued during Roman times. The wine-producing areas were in the southern coastal region with Agrigentum as its center, in eastern Sicily around Mount Aetna, which enriched the soil with volcanic ash, and at Morgentina. The Morgentine vine was eagerly sought by Italian farmers for planting in dense soils or in localities subject to fog.⁵² Labels on wine jars at Pompeii show that wine was imported from Tauromenium and the hinterland of Gela. Horace speaks of wine from Catania.⁵³

In Hispania, grapes were a very important crop, second only to the olive.⁵⁴ After discussing in detail the techniques of viticulture in Italy Columella turns to the subject of vineyards in Spain and Gaul.⁵⁵ He spent much of his youth with his uncle, Marcus Columella, an expert farmer in Baetica, from whom he learned much, and whose practices he frequently quotes.⁵⁶ When he left his native Spain, he spent considerable time on various farms in Latium.

The pioneering research of a group of specialists in Barcino (Barcelona) in the

province of Tarraconensis is providing the first evidence of actual vineyards in Spain. Two Pompeian-style houses in the heart of the ancient city – the House of the Dolphin and the House of Ivy – show evidence of vineyards and wine production. The archaeobotanic research in progress is based on a study of pollen, phytoliths, seeds and fruits, roots, stems, and leaves. This is supplemented by the study of various remains found in the gardens, such as wine amphoras and evidence of wine presses, combined with a study of the various species depicted in wall paintings and mosaics.⁵⁷ Vineyards attached to houses within the city are reminiscent of the many similar vineyards in Pompeii. This approach is new in Spain and the results are eagerly awaited.

Pliny says that in the Spanish provinces the vineyards of Tarragona, Lauron, and of the Balearic Islands challenge comparisons with the first vintages of Italy.⁵⁸ The district north of Barcino was known for the quantity of its wine, not its quality. The province of Baetica was the center of viticulture. An inscription tells us that there was a special imperial viticultural expert assigned to Baetica.⁵⁹ An edict of Domitian (AD 81–96) prohibiting the growing of grapes in the provinces, to protect Italian vinters, was apparently not enforced in Baetica, for the province continued to export wine to Rome. In the area to the north and west of Baetica there are references to vineyards near Nabrisa⁶⁰ and to a vineyard on an island in the mouth of the Tagus.⁶¹

By Pliny's time Gaul produced wines that were well admired. The wines of Vienne had become famous only later, but they brought a great price.⁶² Vienne was a great center of agricultural life and her specialty

was her famous wines. Many mosaics and wall paintings from this region depict aspects of viticulture and wine making. The floor mosaic of a large room in a private home from Saint-Romain-en-Gal, previously mentioned, which depicts the various activities on an estate during the four seasons, understandably emphasizes viticulture. Vintage scenes include gathering grapes from trellises and extracting the juice: three men tread grapes in a shallow vat, the juice flowing into four containers below (Figure 4.14A); two men press a simple lever press (Figure 4.14B). Another panel shows a worker cleaning a storage jar (left); another stirring the pitch that lines the jar (Figure 4.14C). Mosaics are sometimes designed as calendars that picture the appropriate activity for each month: one (September) from El Jem in Tunisia shows two workers treading grapes (Figure 4.14D). Tools seen in these mosaics are also found archaeologically and can indicate the agricultural activity of the area. A single-bladed digging hoe (*sarculum*) used in vineyards, gardens, and orchards was found in Gaul. For other tools used in viticulture found in the provinces see Chapter 16.

According to Pliny, during his day a vine was discovered at Viviers in the province of Narbonensis that was extremely immune to bad weather, and that was now grown throughout the province.⁶³ The importance of Beziers' wine did not extend outside the Gallic provinces. Massilia had two types of wine, but Pliny had no use for the rest of the wines of Gallia Narbonensis, for they were adulterated by smoking and the addition of noxious herbs and drugs.⁶⁴

Archaeobotanical evidence attests the presence of viticulture during the Hellenistic period at Marseilles, where the

archaeological remains of vineyards have been recorded in a field near St. Jean du Désert.⁶⁵ There is also evidence from the Villa des Tuillières near Selongey in Gaul (Côte d'Or, France).⁶⁶ And at the villa of Selongey and most probably also at the villa of the Tête de Fer near Grimault-Noyers-sur-Serein (Yonne, France) a pressing building was part of the *pars urbana* (residence). Furthermore, a destruction layer of the villa of Selongey, dated around AD 250, contained hundreds of carbonized pips from cultivated grape. Palynological evidence of viticulture, indicated by a continuous pollen curve with values around 3 percent, is known from Neublans (Jura, France), situated at the foothills of the French Jura Mountains.⁶⁷

Germania Superior

In the province of Germania Superior, "where the climate was suitable, for example on the Moselle and the Neckar, viticulture was practiced."⁶⁸ Domitian's edict restricting the cultivation of the vine does not seem to have had any lasting or even temporary effect. The fourth-century author Ausonius praises Moselle wine.⁶⁹ The emperor Julian speaks of vines raised near Paris.⁷⁰ Well known are several late Roman wine-pressing buildings from the middle Mosel Valley, near Trier, Germany, a region that is still today famous for its viticulture.⁷¹ Additionally, archaeobotanical analysis has given evidence of huge assemblages of *Vitis* pips.⁷² There is no evidence of vineyards in the lower Rhine region in Germany because the climate was too cold. But individual vines may have grown on the protected southern side of houses where grapes could ripen.



A

Figure 4.14A Three men treading grapes with juice flowing into containers, Saint-Romain-en-Gal, detail of mosaic floor, now located in the Musée de Saint-Romain-en-Laye.



B

Figure 4.14B Two men pressing with simple lever press, Saint-Romain-en-Gal, detail of mosaic floor, now located in the Musée de Saint-Romain-en-Laye.



C

Figure 4.14C Worker cleaning storage jar while another stirs pitch, Saint-Romain-en-Gal, detail of mosaic floor, now located in the Musée de Saint-Romain-en-Laye.



D

Figure 4.14D Two workers treading grapes, El Jem, Tunisia, September in calendar mosaic.



Figure 4.15 Carbonized grape seeds found in a well in ancient Aquincum (Budapest).

Pannonia

There is also evidence of vineyards in Hungary (Pannonia). Orsolya Dálnoki, who is studying Roman viticulture in this area, reports that while there are as yet no excavated sites, the archaeological evidence – for winepresses, viticulture tools, and carbonized grape pips, vine stems, and tendrils – indicates potential vine-growing areas in Roman times.⁷³ The evidence was most plentiful in ancient Aquincum (Budapest) and environs. Material from a partially emptied well yielded 6,108 complete grape seeds (Figure 4.15), many thousands of fragments of plant seeds, as well

as vine stems and tendrils. Fragments of wall paintings picture various aspects of viticulture (see Figures 16.13A–D) and four different types of grapes. Furthermore, viticulture tools were found at four sites in or near Aquincum, and at several other sites.⁷⁴ This evidence, dating from the third to the fourth centuries, indicates that viticulture was well established at this time, especially at Aquincum and along the Danube. Strabo, writing in the middle of the first century BC, reported that the Illyrians imported wine and olive oil by sea in wooden barrels. Local wines, if they existed at that time, would have been limited. The historian Dio Cassius, proconsul in Dalmatia and Pannonia Superiore, writing in the early third century, said the Pannonian people who lived near Dalmatia, along the Danube shore, from Noricum to Moesia had neither oil nor wine except in small amounts, and it was negligible for its quantity and quality, for they lived in never-ending cold winter.⁷⁵ Many authors, however, refer to the definite changes that took place during the reign of the emperor Probus (AD 276–82), who rescinded Aurelian's order to reduce the number of vineyards in Gaul Pannonias and Moesia, and had his soldiers plant vineyards on Mt. Alma near Sirmium.⁷⁶

Britannia

Evidence for viticulture in Britannia is mentioned in the ancient texts, and the archaeological picture continues to emerge. A considerable number of vine stems were found in the villa at Boxmoor, Hertfordshire, on a sheltered slope facing west and south.⁷⁷ In 1967, excavated remains tentatively identified as those of a vineyard were reported at North Thoresby,

Lincolnshire.⁷⁸ David Williams assessed the limited evidence, finding that if viticulture was practiced in Britain, it was on a small scale.⁷⁹ More recently, however, a convincing case has been made for the successful and extensive cultivation of grapes by the second and third century AD, if not earlier, based on the discovery of remains of a vineyard at Wollaston, Nene Valley in Northamptonshire.⁸⁰ The combination of the stratigraphic excavation and palynological study of Roman-era remains, together with the discovery of suitable pruning tools, have resulted in a reappraisal of the scale of grape production in Britain.

Achaëa

Most parts of Greece produced wine, not as an article of export, but rather for local consumption. Likewise, many wines produced throughout the province of Asia were for local consumption, but they also had many famous wines that were exported. According to Pliny the Elder, the island wines were highly regarded, including those of Chios, Lesbos, Cos, and Rhodes, but various Lydian and Carian wines were also favored.⁸¹ Actual remains of vineyards have yet to be discovered, although the agricultural terracing required for growing grapes, olives, and other crops has been the subject of archaeological study in recent years.⁸²

Syria and Palestine

There were many vineyards in Syria, and by the second millennium BC, Syrian wines were imported by all countries

of the ancient world. Diodorus Siculus, writing in the first century BC, notes that in his day Syrian wines were exported to North Africa, Arabia, East Africa, India, and Spain. There is as yet, however, no reported evidence for the archaeological remains of a vineyard.

Finds of grape pips in the excavations at Jericho indicate that viticulture in Palestine dates back to at least the third millennium BC. Within Palestine, the ancient sources portray Judaea as the main area for vineyards, while Galilee was noted for its olives.⁸³ However, there is abundant textual and archaeological evidence for grape production throughout the region. Ancient rabbinic sources make it clear that the primary economic value of grapes was for wine production and those produced in the Carmel Mountains were favored in antiquity as they are today. The archaeological evidence for wine production generally takes the form of pressing vats, towers, and *amphorae*, as well as agricultural terracing. Grape pips are commonly found as mineralized and macro-remains in Roman period assemblages (see Chapter 16). In most instances, they attest to the popularity of fresh or dried grapes for eating as well as for wine making.

Africa

The Greek papyri from Egypt give us considerable information about the vineyards in Egypt. The papyri document the taxes both in money and in kind. Vineyards, *ampeloi* (ἀμπελῶνες), appear in these texts more often than any other non-arable type of cultivation.⁸⁴

African wine was rarely attested in the classical texts before the Empire.



Figure 4.16 Vineyard in olive orchard surrounding a farm-house, mosaic from Tabarka, Tunisia, now in the Bardo Museum.

The Carthaginians had produced wine, but it was supposedly of inferior quality and quantity.⁸⁵ Even under the Romans, grapes were always a minor crop compared to grain. There is little information in the sources regarding the production of wine, but the areas not too far from the sea are well suited to the vine.⁸⁶ There were commercial corporations of wine merchants (*collegium vinariorum*) and sellers (*oenopolae*) at Carthage.⁸⁷ Columella was acquainted with Mago's work, whose Latin translation – ordered by the Roman Senate – likely served Italians living in the arid regions of Africa, who were not used to the dry-farming techniques required in this part of the empire.⁸⁸

Mosaics from Africa give valuable information about agricultural activities. An early fourth-century mosaic from Tabarka

(Thabraca) in Tunisia, now in the Bardo Museum in Tunis, shows a vineyard surrounding a farm building, the vines trained on tiered frames (Figure 4.16). Olive trees are planted throughout the vineyard.

An early third-century wall mosaic from Cherchel, now in the Cherchel Museum, shows the winter hoeing of a vineyard, whose vines are staked in a method used for free-growing varieties, known as *vitis characata*. Such vines, according to Columella, are trained around "canes fixed in the ground and ... bent into loops and circles through props of reeds to which wood branches are tied."⁸⁹ But, this method was not the usual one for vine training in the provinces because Columella indicates that the most ubiquitous were vines "resembling small trees

and standing by themselves on a short stock without any support.”

ORCHARDS

Italy produced fruit in such profusion that Varro said the whole peninsula seemed to be one orchard (*pomarium*).⁹⁰ The late Republic, from Sulla to Augustus, “was a period of profitable experimentation in fruit raising,” which gave a respite to soil exhausted by cereals.⁹¹ Roman generals, who owned large estates, were anxious to find and bring back to Italy new varieties of fruit, which they planted at their villas. Strabo, writing in the Augustan period, reports fruit trees in many parts of Italy, the hills around the Po Valley,⁹² Pisenum,⁹³ Latium,⁹⁴ and Capua, which he describes as the richest fruit land.⁹⁵ Columella could say that Italy “has learned to produce the fruits of almost the entire world” through the zeal of her husbandmen.⁹⁶ But, for orchards in the countryside of Italy we are dependent largely on the written sources; although one has been identified at the villa of Settefinestre.⁹⁷ Furthermore, *pomaria* (orchards) are among the various types of tomb gardens known from inscriptions, especially in the vicinity of Rome.⁹⁸

Pompeii was famous for its fruit and nuts. The Pompeians made room for a few fruit trees even in a small house garden, but there is a large commercial fruit orchard within the city walls at Pompeii (I.22).⁹⁹ About half of the excavated area yielded some 150 tree cavities, approximately 2 to 3 meters apart and arranged in rows.¹⁰⁰ About 90 percent had been small trees, which is characteristic of commercial orchards in the area today. We reached the northern limit of the orchard

where we uncovered a wall with a cistern directly in front of it. The cistern probably collected rain from the roof of the house (most of which is still unexcavated) and provided the water so necessary in establishing a young orchard. The rainfall in the Pompeii area is barely adequate for orchard trees and extra water is always necessary for young trees not yet established. It is quite possible that the path that led to the *triclinium* could have served as an irrigation channel, as we have found in other gardens. Water from the cistern could then be channeled into the orchard, as needed.

The *triclinium* was shaded not by a vine-covered pergola, but by the spreading branches of three large trees (Figure 4.17). According to Carlo Fideghelli of the Istituto Frutticoltura in Rome, the tree roots at the southeast corner lend the appearance of an olive at least 30 years old. High values of olive pollen were indeed recorded from this garden, confirming Fideghelli’s identification and suggesting that the other two trees were also olive. It is clear they were growing in this *insula* many years before the younger trees had been planted.¹⁰¹ An altar in front of the *triclinium* is similar to painted examples on *lararia*, which depict sacrifices taking place outdoors on a free-standing altar set amid trees. The offerings made to the deities were normally modest, but the garden would be the natural place for a burnt, and certainly for a blood, offering.

Columella gives detailed instructions for planting and maintaining an orchard, recommending that trees should be planted 3 to 4 meters apart in order to give ample space for the growth of mature trees and for crops to be planted underneath.¹⁰² In our orchard the trees were 2 to



Figure 4.17 Altar and *triclinium* in large orchard 1.21, Pompeii.

3 meters apart, but again, the soil is very rich. There is no way to know if there was intercultivation in this orchard, for in the original excavation all the topsoil had been removed. This destruction eliminated the possibility of finding carbonized vegetables or fruits, such as were discovered in other gardens.

An orchard would normally include both fruit trees and nut trees. Fideghelli suggested that the two large clusters of root cavities in the southeast corner of the orchard were clumps of small trees, perhaps filberts, whose suckers had been allowed to grow, such as in present-day orchards. He had tentatively identified a similar clump in the garden of the House of the Ship Europa as filberts, where indeed later carbonized filberts were found. What were the other trees in this orchard? At Pompeii they were acquainted with the apple, pear, plum, fig, quince, sorb apple, peach, the cherry, and the lemon. They also knew the almond, filbert or hazelnut, walnut, and chestnut. The chestnut, however, was usually a forest tree. Pompeians could well have known, of course, other

trees not yet recorded archaeologically in the city.

The hazelnut is indigenous to the Pompeii area and abundant on the lower slopes of Vesuvius. One of the Latin names of the hazelnut, *abellana*, takes its name from Abella, a town to the north of Vesuvius famous for its nut and fruit trees.¹⁰³ The Herculaneum fig takes its name from one of the Vesuvian cities, just as the modern American and little Greek apples are named from their places of origin.¹⁰⁴ By Pliny's time there were many varieties of species, some named for those who were said to have produced them by grafting.¹⁰⁵

Mattingly, in his comprehensive treatment of the olive in antiquity, discusses in detail the evidence for many olive orchards in the Roman Empire. For example, he describes excavations in the southern Italian village of Passo di Corvo in Apulia, where planting pits of the trees of an olive orchard were uncovered above a Neolithic settlement.¹⁰⁶ Aerial photographs, taken by Bradford in Apulia, reveal planting pits in a layout suggesting

olive orchards.¹⁰⁷ Other photos taken by the French in Tunisia during the Second World War similarly revealed tree pits of many olive orchards.¹⁰⁸ These orchards, which Bradford believed were predominately olive, occupied over 60 percent of the ground area. The regularity of these orchards indicates they were created from nursery-propagated stock, not cuttings grafted onto existing wild olive trees. Bradford also reports the substantial evidence, furnished by the remains of olive mills and presses, for extensive olive orchards; the great size of these presses indicates their capacity to process crops of large commercial orchards. From a survey of remains of these presses, especially in central Tunisia and western Libya (ancient Tripolitana), it has been possible to estimate the scale of oil production.¹⁰⁹ Palaeobotanical remains in wadi beds in Tunisia indicate that by a simple but ingenious system of floodwater management the ancient farmers were able to cultivate vineyards and olive orchards.¹¹⁰

When orchards were planted in the provinces, special care was taken, as in the case of the vine, to plant varieties that were adapted to the local soil, climate, and exposure. The olive, with its many slightly different varieties, had the capacity to produce in marginal areas, including arid-zone environments, where other crops could not be raised.¹¹¹

We have numerous references in the literary sources to fruits or nuts produced in the provinces; there is, however, only limited evidence about the orchards in which they would have been grown. A rare example is the villa of Selongey in Gaul, where there is archaeobotanical evidence for fruit trees.¹¹² We have no archaeological information about orchards in the Spanish provinces,

but the ancient authors mention various fruits grown there. Knörzer, analyzing soil samples rich in plant remains from wells, latrines, and refuse pits in the lower Rhine region, was able to identify eleven species that were grown in orchards.¹¹³ Dickson, analyzing soil samples from disused wells, latrines, and cesspits in British sites, found evidence of only three or four fruit species and the walnut, which could have been grown in orchards.¹¹⁴

Sicily had long been a country planted with gardens and orchards. According to Diodorus,¹¹⁵ the entire countryside around Syracuse was beautiful with fruit-bearing trees; Panhormus, Solus, and Halyeiae were surrounded with orchards. Gelon's villa was famous for its orchards, flowerbeds, and system of irrigation.¹¹⁶ The Sicilians were so fond of gardens that Hiero built one on his famous ship and even published a book on gardening.¹¹⁷ As a Roman province, Sicily continued this tradition with orchards of all the fruits that grew in a Mediterranean climate. Athenaeus specifically mentions almonds, apples, plums, quinces, and walnuts.¹¹⁸ Sicilian quinces were valued abroad for their medicinal use.¹¹⁹

The only reference to an orchard in Greece is the small grove of fruit-bearing trees in the Sanctuary of the Nymphs in the mountain town of Kyrtones.¹²⁰ The traveler Pausanias speaks of groves of fruit trees at temples he visited.¹²¹ The Talmud speaks of the value of orchards in Syria, where fruit and date orchards were even more profitable than vineyards.¹²² We fortunately have information, which comes for the most part from Greek papyri, about orchards in Egypt, although this evidence is limited because it is concerned with the assessment and collection of taxes on agricultural

land. The papyri do not use the Latin word *pomarium*, but instead the Greek *paradeisos* (παράδεισος), to denote an orchard, which included date palms and olives. Unlike in Greece, in Egypt olives were grown in walled gardens. Fruit and nuts raised in Egypt include the date palm, persea, fig, olive, apple, pomegranate, peach, pear, citron, cerob, sebesten, jujube, nuts (walnuts, hazelnuts, chestnut, and almond), pistachio, quince, and apricot, and among the examples of gardens that Bagnall describes is an orchard (*paradeisos*) in the suburbs of Arsinoë, leased to an orchard-man (*pomarius*), in which part of the rent was paid in produce, which included figs, citron, pomegranates, and peaches.¹²³ In Upper Egypt, a temple garden known from an inscription in verse by the owner mentions the persea and date palms.¹²⁴

Although there is some archaeological evidence, as in Britain and the lower Rhine, and more plentiful literary evidence for the production of fruit in the provinces, the archaeological evidence for the actual location of the orchards where the fruit was raised, as we have seen, is largely lacking. But again, mosaics reflect the importance of fruit production. One panel in a mosaic from Saint-Romain-en-Gal shows workers harvesting fruit (Figure 16.16B). Many mosaics in Africa feature the various fruits raised there (for an example, see Figure 12.15). The literary evidence from Egypt is unique in providing the location and size of specific orchards and the fruits raised in them.

FLOWER GARDENS

We have seen that flowers, an integral part of the kitchen garden, would

supply the needs of the household, and if raised on a villa near a town, could be sold to townsmen for profit. We have evidence also of large commercial flower gardens, one of which I excavated at Pompeii in the Garden of Hercules (11.8.6: Figure 4.18). Most of the garden had been previously excavated, but there were areas in which the original *lapilli* had been left to a sufficient height to preserve the ancient soil contours and root cavities. We found complicated soil contours that divided the garden into many beds, unlike anything I had found up to that time in the Vesuvian area. Under a large pile of original *lapilli*, we found a perfectly preserved bed in which, after a rain, we discovered round formations; in the center of each there had been a very small plant, but it was too small for the *lapilli* to have trickled into it

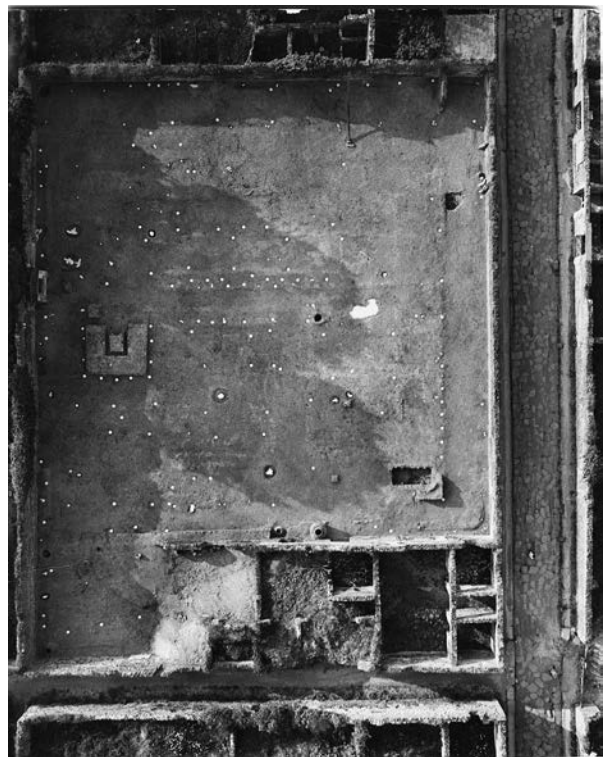


Figure 4.18 Garden of Hercules, 11.8.6, Pompeii, aerial balloon photograph, after Jashemski 1979, fig. 421.

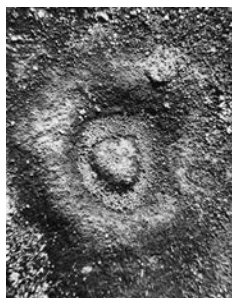


Figure 4.19 Soil shaping, Garden of Hercules, 11.8.6, Pompeii.

to preserve the root cavity (Figure 4.19). Around each little plant was a depression for water. As we continued to clear the garden, we found evidence of other beds.

Rainwater from the roof of the house was collected into large earthenware containers (*dolia*) flanking the door leading into the garden; a channel then carried this water to a nearby pool. Additional water had to be carried in, for the aqueduct did not reach this part of the city. This water was poured directly from the street through an *amphora* tip inserted in the east end of the north wall to fill a *dolium* inside the house (Figure 4.20). Soil contours showed how water was led along the east wall of the garden, watering trees growing in a channel and also along the south and west walls. Water from these channels, as well as water from the pool and a cistern, was directed into other channels that divided the garden into wide beds. Aerial photographs clearly show the pattern of the root and stake cavities, and in a remarkable way reveal even badly damaged soil contours that are not visible from the ground (Figure 4.18). The beds were not all on the same level: those on the north were slightly higher than those on the south, thus conforming to the natural slope of the land. To ensure the flow of water from the higher to the lower levels the water



Figure 4.20 Amphora neck inserted in street wall, Pompeii, to fill large *dolium*.

channels on the north were placed higher than the beds, those on the south lower. The modern Pompeian shapes his planting beds in much the same way, although the height of the modern beds is sometimes much greater than in this ancient garden (Figure 4.21).

In this garden there were relatively few trees but many stakes used to shade young plants, as is still the practice today. The many nails found in the garden probably came from the frames. The stakes for shading and the carefully watered beds make it certain that either flowers or vegetables were grown; probably both at different seasons. There is, in fact, good reason to believe that this garden was a commercial flower garden for at least part of the year.



Figure 4.21 Modern garden with terraced levels, Pompeii.

Flowers were in great demand in ancient Pompeii, but the Romans did not use them in bouquets as we do, but for garlands and crowns that were much in demand for festivals, banquets, birthdays, weddings, games, and funerals. A garland was the proper gift to honor not only the gods but also the living and the dead. Cupids and Psyche are frequently pictured in wall paintings engaged in human activities. Rostovseff believed that such wall paintings depicted businesses in which the householder was engaged. Thus, images of Cupids and Psyche gathering flowers and making garlands and crowns reflect the importance of this activity – best represented in the painting of flower dealers from the House of the Vettii (Figure 4.22). At the right a gardener brings flowers to market on the back of a goat; a small boy trudges behind, his basket filled with flowers. Cupids make garlands that are displayed on wooden racks, from which a customer, at the far

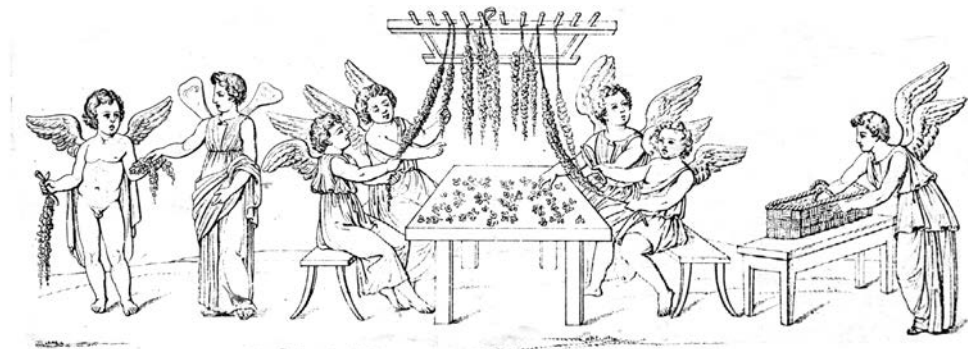
left, is making a selection. Because of these images Della Corte believed that the Vettii raised flowers commercially on their farms; other paintings referring to the wine trade suggest the same for grapes. A similar image of flower dealers in the House of the Calpurnii (vii.7.2/15), excavated before the days of photographic records, is fortunately known from a drawing made before the painting disappeared (Figure 4.23A). A painting in the Macellum, also preserved in a drawing, shows Cupids and Psyche hanging garlands on their donkeys that turned the mills, as they celebrate the Vestalia, the festival of Vesta, the patron goddess of bakers (Figure 4.23B).

There was a thriving business of garlands and wreaths at Pompeii. Many wall paintings show garlands used as decorations in houses and shops, even the forum. Garland sellers were probably among those who set up portable stands on market days in the forum or on one of the main streets of Pompeii.



Figure 4.22 House of the Vettii, iv.15.1, Pompeii, Cupids and Psyche's gathering flowers.

Figure 4.23A
Macellum, vii.9.7/
8,19,42, Pompeii,
flower dealer, fresco,
after Fausto and Felice
Niccolini, *Le case ed i
monumenti di Pompei
disegnati e descritti*
(4 vols., 1854-97),
Vol. I, Part I; 2, pl. 4.



A

Figure 4.23B Macellum, vii.9.7/
8,19,42, Pompeii, Cupids and
Psyche's hang garlands on don-
keys that turn a mill, fresco,
after Fausto and Felice Niccolini, *Le
case ed i monumenti di Pompei
disegnati e descritti* (4 vols., 1854-97),
Vol. I, Part I; 2, pl. 4.



B



Figure 4.24 Perfume bottle found in Garden of Hercules, 11.8.6, Pompeii.

Many flowers were also used for making perfume and unguents. A large number of perfume bottles (Figure 4.24) were found in the house connected with the Garden of Hercules and we found, surprisingly, many fragments of perfume bottles in the garden. The discovery of a large tree root cavity in this garden, identified by Prof. Fideghelli as that of an olive, reminds us that olive oil was an important base used in making perfume and unguents. One of the largest commercial flower growers in modern Pompeii told me that the soil contours and cavities in the Garden of Hercules definitely indicated flower culture; he grows his flowers in the same kind of plots today. Flowers are also raised commercially in the Pompeii area today for cut flowers.

The partly excavated maritime villa of Sinuessa in Campania, near modern Mondragone, has a garden built on at least four terraces, the lower one ending just a few meters from the present shore line. Elaborate care had been taken to bring

in good soil for this garden and to provide for its irrigation; sophisticated measures were used to insure protection from underground salt water, due to its nearness to the sea.¹²⁵ The excavators suggest that flowers might have been raised commercially in the garden, consistent with the suggestion of Cato, who advised that if a villa was near a town, flowers could be a very profitable crop.¹²⁶

No other flower gardens have been excavated in Italy, but recent archaeological evidence led to the identification of a small shop in the forum of Paestum as a perfumery, where the pressing of the oil and the making of perfume took place.¹²⁷ Wall paintings of *unguentarii* (perfume dealers) in, for example, the House of the Vettii (Figure 4.25) and the House of the Calpurnii at Pompeii and at houses in Herculaneum, show that the making of perfume was done in the presence of customers. A wall painting from Pompeii (provenience unknown), now in the Fitzwilliam Museum in Cambridge,



Figure 4.25 House of the Vettii, iv.15.1, Pompeii, perfume dealers, fresco.

England, shows Cupids working a small vertical press, certainly pressing oil for perfume (Figure 4.26). Such a press has been found at Pompeii (Figure 4.27). Vergil, Propertius, Martial, and Ovid speak of the fame of the roses and the perfume of Paestum. We learn from literature and inscriptions that Praeneste and Capua were also centers of the perfume industry. In Capua there was a street of the *unguentarii*, where the perfumers had their shops. Pliny says that Egypt, of all the countries in the world, was best adapted for the production of unguents, but Campania was a close second.¹²⁸

It is not surprising that we have knowledge of actual flower gardens in Egypt. The leases of several rose gardens as well as that of a narcissus garden are

recorded in Greek papyri, and it is clear that Madonna lilies were raised for perfume.¹²⁹ Egypt, where flowers could be cultivated the year round, was also famous for its garlands; Martial speaks of winter roses from Egypt.¹³⁰ The prize amaranth was grown in Egypt and it was used for winter garlands.¹³¹ Also mentioned by Pliny for garland flowers in Egypt are sweet marjoram, known in Egypt as *samsucum*, the white *viola* (stock), *batis* (sea fennel), *tychnos* or *strychnos* (the nightshade), and *pesoluta*.¹³² Bagnall also reports the presence of the laurel and myrtle in Egypt.¹³³

Many flowers were raised in commercial flower gardens in Asia for perfumes and unguents. The iris was not used in garlands, but its root was highly prized



Figure 4.26 Cupids pressing flowers, Pompeii, Fitzwilliam Museum, Cambridge, England.



Figure 4.27 Reconstructed vertical oil press at Pompeii, VII.7.

for unguents, also for medicine; the best came from Pamphylia but the Cilician iris was highly praised.¹³⁴ Syrian fenugreek oil was once considered the best.¹³⁵ Literary sources document that different places around the Roman Empire were famous for particular flowers used for unguents. Inscriptions, more often tomb inscriptions, give evidence of the presence of *unguentarii* throughout the empire, in Gaul, Achaëa, Dalmatia, Britain, and Africa. The evidence documenting the making of floral scented unguents indicates that flowers were grown commercially in many parts of the empire, although the actual gardens in which they were raised have not been located.

Wall paintings and mosaics from Rome and elsewhere throughout the Roman world attest the use of flowers for making garlands and crowns. Four lost wall paintings, found in 1704, on the ceiling of a burial chamber near the church of S. Stefano Rotondo in Rome, picture flower dealers, including a peddler, who carries his

garlands on a curved pole. Inscriptions from Rome refer to garlands sold along the Sacred Way¹³⁶ and to two freedmen, one of them a candle, the other a garland maker.¹³⁷ In a mosaic from Algeria, a bountiful garland as a border in a mosaic is depicted with fruits as well as flowers, along with the bindings that hold them together (Figure 4.28). A mosaic from Desenzano, north of Rome, depicts two women making garlands; mosaics in Piazza Armerina

in Sicily also portray this activity, as does a mosaic from Sousse, in Tunisia, acquired by the Boston Museum of Fine Arts.¹³⁸ In the upper zone erotes are picking flowers that are clearly roses in a garden enclosed by a lattice fence (Figure 4.29). In the lower zone of the Boston mosaic, reading from right to left, the roses are brought to the workers, who make them into garlands, which are displayed for sale on a pole by a peddler. Many such commercial flower



Figure 4.28 Garland border from the wedding of Thetis, Choba, Bejaia, Algeria.



Figure 4.29 Cupids gathering roses, Sousse, Tunisia, mosaic, Museum of Fine Arts, Boston.

gardens would have been needed to supply the need for flowers in the Roman Empire.

CONCLUSIONS

So far, four broad types of produce gardens can be identified among the Romans: kitchen gardens, vineyards, orchards, and commercial flower gardens. As far as the evidence is preserved, all are found throughout the empire, limited only by climate. Cato, Pliny, and Columella discuss the siting, planting, and cultivation of kitchen gardens. Pliny, fortunately, tells us that they should be near the house with a source of water close by. Evidence of kitchen gardens has been found in: Settefinestre, the lower Rhine region of Germany, Austria, Hungary, The Netherlands, and Egypt.

Evidence of vineyards is found in Italy, Spain, France, Germany, and Hungary; of orchards, in Italy, Sicily, Germany, and Judaea. Finally, we should recognize the difficulty faced by archaeologists looking for evidence of ancient produce gardens throughout the empire because their size makes excavation expensive and difficult. Although the remains of water channels may indicate the presence of a large garden, orchard, or vineyard, preservation of the soil surfaces and plant remains is often poor, as deep plowing continues to destroy ancient soil contours, carbonized plant remains, and pollen. Nonetheless, at various sites today traditional planting practices and cultivation are responding to local cultivation conditions in similar ways, so it is valuable for archeologists to study present gardens in the places where ancient gardening has been identified.

Chapter 5

TEMPLE GARDENS AND SACRED GROVES

Maureen Carroll

THE ESTABLISHMENT OF a cult site in a wooded location, or the provision of a temple with a grove or garden, was an ancient pre-Roman custom that is attested from the third millennium BC in many Mediterranean cultures.¹ Divine protection of life, and therefore of fertility, was celebrated in architecture, texts, and art throughout the ancient world. There was an intimate connection between the gods as the givers of life and vegetation as a sign of that life and fertility; for that reason, the temples and sanctuaries of many gods included gardens and groves that were considered holy. The Egyptians, for example, imagined the gods to inhabit the gardens and groves of their temples, and the pharaohs, as the divine rulers on earth, enjoyed extensive gardens in and around their palaces.² Near Eastern cuneiform texts occasionally make the connection between gardens and the gods. Ishme-Dagan, son of Shamshi-Adad, king of Assyria from 1814 to 1782 BC, recorded in a letter to his brother that he intended to plant “a garden for the god Addu” that should be “full of juniper trees.”³ In the book of Isaiah, trees planted to beautify the sanctuary of the Hebrew god are mentioned, suggesting that gardens were planted in holy places, either around a temple or an open-air altar.⁴ Greek pagan perceptions of a type of paradise or Elysium for gods and heroes also existed in mythology at least since the late Bronze Age. And in a mythical grove near the Atlas Mountains, the so-called garden of the Hesperides, the Greeks believed that the goddess Hera planted the

tree of immortality, which was laden with golden apples. In this sacred garden grew a variety of other trees, such as pomegranate, pear, mulberry, myrtle, laurel, and almond trees.⁵

Through their close contacts with Greece and Asia, particularly after the annexation of those territories in the second century BC, the Romans became familiar with the ancient sites and customs of their Mediterranean neighbors. Venerable old Greek temples and sanctuaries were among the places of interest to Roman historians and travelers. In the later second century AD cultivated Roman tourists, such as Pausanias, could still visit and admire the ancient sacred groves of olives, pines, cypresses, oaks, laurels, and fruit trees at many sanctuaries in Greece. These were recorded in Pausanias' guidebook, written in AD 174, as some of "the most memorable and interesting things" to visit.⁶ In some cases, Pausanias gives the reader information on the antiquity of a grove, stressing that it is particularly old, but this is not consistently done. Occasionally a Greek temple grove mentioned in Roman literature can be dated by archaeology or its appearance in earlier texts of pre-Roman date. But even if some of these sites are included in older Greek texts, it is not certain that the trees seen by Roman visitors were those that were planted centuries before, especially since replanting and the replacement of old or dead trees was often carried out over time.

Even individual "famous" trees of a bygone era or of mythological significance were objects of delight to Roman authors. Pliny the Elder, writing in the mid-first century AD, specifically referred to venerable plane trees, including one in the Athenian suburb of Academy and

one "celebrated in both Greek and Latin records" at Gortyn on Crete under which Zeus lay with Europa.⁷ He seems to suggest that the plane tree in Athens is one of those contemporary with the sanctuaries, *gymnasia*, and philosophical schools of the fifth and fourth centuries BC, but whether, in reality, any of these survived the attacks of Philip V of Macedon in 200 BC or the destruction caused by Sulla in 86 BC is a matter of debate.⁸

In his discussion of the trees and temples of his native Italy, Pliny remarked on the antiquity of the custom of the veneration of trees in temple precincts, and he made a direct connection between types of trees and the deities worshiped: "Different kinds of trees are kept perpetually dedicated to their own divinities, for instance the oak to Jove, the bay to Apollo, the olive to Minerva, the myrtle to Venus, the poplar to Hercules."⁹ The association of these particular trees with these same gods is paralleled in earlier Greek religion, and indeed many of the Greek cults were absorbed by Rome. In exploring temple groves and gardens in the Roman period, therefore, it is important to consider those of ancient Greece and Greek Asia that still existed and were revered in the Roman period as well as those of Italy and the Roman western provinces. Both written sources and archaeological evidence offer insight into these sacred sites.

Before we examine the evidence, the ancient terminology used to refer to gardens and groves should be discussed. In the Greek texts, *άλσος* (*alsos*) is normally the word used for "sacred grove," although it also could apply to a holy place, with or without trees.¹⁰ *Κήπος* (*kepos*) is the word generally used for "garden," whether it was sacred or not.¹¹ The distinction

between “grove” and “garden” is not always clear-cut; a grove of trees could be called a κήπος, especially if it had fruit trees. The Latin texts use either *nemus* or *lucus* for a grove, although scholars do not agree on the distinction between the two. However, *lucus* generally appears to have been a grove that was created and inhabited by divine spirits and was left in a natural state, whereas *nemus* refers to a grove created or manipulated by man and furnished with sacred buildings and images.¹² *Hortus* refers to a garden, but it appears to be used only in reference to secular gardens.

Cyprus, which became a Roman province in 22 BC, had an ancient and lengthy practice of the veneration of fertility gods associated with gardens, groves, and vegetation – a tradition that continued throughout the first century AD.¹³ Of primary importance in the religious life of the island was the goddess Aphrodite, the Roman Venus, to whom a sanctuary was established around 1200 BC in Old Paphos (Kouklia). Aphrodite, the goddess of love and fertility, traditionally was believed to have risen out of the sea and stepped onto Cypriote shores, leaving flowering plants in her wake.¹⁴ According to the Greek historian Herodotos, this Cypriote cult had originated in Syria where Astarte, the fertility goddess of the Near East, was venerated.¹⁵ Well into the Roman period, pilgrims from all over the ancient world traveled to the sanctuary, particularly during the festival of the goddess, starting their procession at the coast and ending it at Hierokepis, the “Sacred Garden.” There is, as yet, no archaeological evidence for gardens or plantings at the sanctuary, so we are dependent on the references to this sacred garden in literary sources.

A Cypriote cult site that has produced both written and archaeological evidence for gardens in the Roman period is the Sanctuary of Apollo Hylates, or “Apollo of the woods,” at Kourion, to which many pilgrims traveled.¹⁶ The trees or bushes that were planted in the seventh or sixth century BC in pits and trenches cut into the bedrock in the sanctuary precinct no longer existed by the first century BC, since they were paved or built over by that time. However, an extensive grove filled with wild animals, primarily deer, was described by the Roman writer Aelian in the second century AD.¹⁷ Perhaps the officials of the cult owned woodlands separate from the temple site at Kourion, especially since Apollo was revered there as the god of woodlands. There is no literary reference to the curious circular monument that enclosed six pits, possibly for living or artificial trees, within the temple precinct, although this appears to have been in use at least until the second century AD.

Occasionally, archaeological evidence for temple groves corresponds directly to literary references to plantings in sanctuaries. Pausanias mentioned the cypress grove at the Temple of Zeus at Nemea, and excavations have revealed the planting pits for the trees dug into the living rock as well as the charred remains of cypress wood at the bottom of the pits.¹⁸ Although this grove was planted centuries earlier, trees were still growing in the sanctuary when Pausanias saw it. A “grove” (*nemus*) of olive and laurel trees surrounding the Altar of the Twelve Gods in the Athenian Agora is mentioned by the Roman writer Statius in his epic poem *Thebaid* of the late first century AD.¹⁹ Excavations conducted there, likewise, revealed the remains of the planting pits of trees, although there

appears to have been a very limited number of only three or four pits, suggesting that the term “grove” could be applied to a very modest cluster of trees.²⁰ Terminological ambiguity and poetic license may also be behind some of the literary references to groves. Strabo suggested that relying on ancient poetry for a description of a sacred grove was unwise, since the poets called all sanctuaries groves, “even if they are bare of trees.”²¹

In other cases, temple groves in Roman Greece are not mentioned in the written sources, but material remains of them have survived to indicate that they did exist. A case in point is the grove surrounding the Temple of Hephaistos in Athens, known only through archaeological excavations in 1937 that uncovered rows of planting pits, some of them still containing ceramic planters for the once young trees or

shrubs (Figure 5.1).²² Although the temple was built in the mid-fifth century BC, the trees around it were not planted until about two centuries later. This grove may have been damaged in the siege of Athens under Sulla in 86 BC: in need of timber for his siege engines, this Roman general is credited with the felling of trees in the shady groves of the shrines and *gymnasia* in the suburbs of Academy and Lykeion.²³ The temple grove was replanted thereafter in the first century BC, but it was finally given up a century later.

Strabo refers to the grove of laurels surrounding the gymnasium and stadium at Nikopolis, the new Roman town in northwest Greece that was created by Octavian (later called Augustus) in the late first century BC.²⁴ He does not mention a grove at this site in conjunction with the sacred precinct built by Octavian between 29 and



Figure 5.1 Temple of Hephaistos, Athens, replanted grove.

27 BC to celebrate his defeat of Antony and Cleopatra at Actium in 31 BC, but recent excavations show that the courtyard in this victory monument was a planted area within a *porticus triplex*.²⁵ Ceramic planting pots were inserted in the ground parallel to and in front of all three porticoes, with the altar in the center of the courtyard. The precinct was dedicated to Mars, Neptune, and Apollo. Octavian himself must have chosen the trees for his monument, possibly laurels, as these were particularly sacred to Apollo, his patron god.

Occasionally temples and groves are depicted on the reverse of Roman coins, particularly those from various places in the Greek-speaking eastern Empire. Bronze coins of Caracalla (AD 198–217) and Elagabalus (AD 218–22) from Thrace, for example, show the emperor's portrait on one side, and on the reverse is a portrayal of a temple at Augusta Traiana, modern Stara Zagora in Bulgaria.²⁶ The cult statue shown inside the temple appears to have been Artemis (or Diana) with a bow and arrow, and on either side of the temple is a tree, suggesting that there was a temple grove on the site. A temple is sometimes shown on coins from Zeugma on the Euphrates, modern Belkis in Turkey, that were issued in the second and third centuries AD, from Antoninus Pius (AD 138–61) to Philip II (AD 247–9). In the temple is a cult statue, possibly of the Tyche of the city, and in front of this building is a colonnaded square with what appears to be a large grove of trees within it.²⁷ This may represent a temple and its sacred grove on the ancient acropolis, now Belkis Tepe, but only a few ruinous walls remain of any structures there.

The provision of temple precincts with groves was also common practice in

Roman Italy and the Roman provinces, although most of the evidence for temple gardens comes from literature. For example Livy, writing in the late first century BC, described a highly revered grove (*lucus*) of Lacinian Juno 6 miles from Croton in southern Italy.²⁸ This sanctuary was enclosed by dense woods and tall fir trees, and in the midst of the grove were pastures for cattle sacred to the goddess. Strabo mentioned a sacred grove through which the Liri River flowed at Minturnae and which was held in much reverence by the Minturnians.²⁹ Aelian, writing in Greek in the early third century AD, reports that at Etna in Sicily there was a temple precinct of Hephaistos (or Vulcan) in which were sacred trees and a fire that never died down.³⁰

Roman temple groves must have existed in many places, but archaeological evidence for them is extremely limited because excavators in the past have tended to concentrate on the structural remains of the temple precincts rather than on more ephemeral evidence for the environment. Nevertheless, there is some valuable archaeological confirmation of the practice. One of the earliest examples of a Roman temple garden is that of Juno at Gabii, 12 miles east of Rome, dating to the second half of the second century BC (Figure 5.2).³¹ Excavations at the site revealed rows of thirty-four holes of approximately 1.50 × 1.60 meters cut into the rock for trees; these were arranged on three sides of the temple, much like the contemporary plantings around the Temple of Hephaistos in Athens. In the first decades of the first century BC the grove was restructured and seventy new holes measuring 1.20 × 1.30 meters were dug. These may have been for less

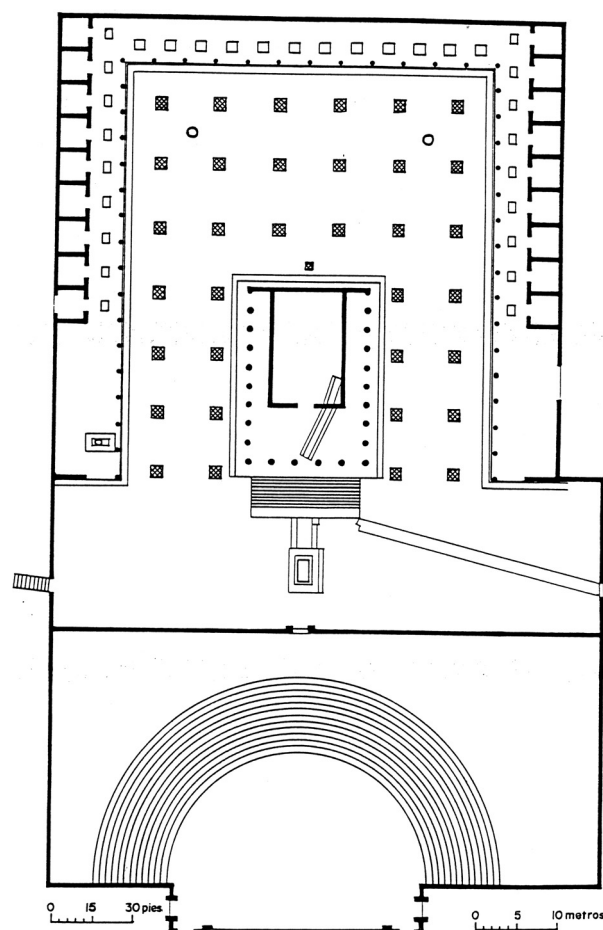


Figure 5.2 Gabii, temple precinct, plan showing planting pits for trees, ca. 150–100 BC, after Coarelli 1993, fig. 2.

substantial trees or bushes than those in the first phase, possibly myrtles.³²

The Arval Brethren, an ancient fraternity of twelve priests, conducted archaic fertility rites and worshiped in a sacred grove (*lucus*) of the goddess of fecundity, Dea Dia, on the road from Rome to Ostia. One of their tasks may have been an annual ritual circuit of the Roman fields, as part of the Ambarvalia festival in May. The site of the sanctuary of Dea Dia has been explored archaeologically, and although remains of the temple complex have survived, there is no physical evidence for a planted area that certainly once existed.³³ Nevertheless, something is known about

the rituals conducted in the grove, largely from inscriptions and textual sources from the early first to the mid-third century AD. According to inscriptions, the grove contained ilex and laurel trees, and only the priests entered it to celebrate the annual sacrifice or to prune damaged trees or remove or burn off dead ones.³⁴ The *lucus* remained inaccessible to the public.

Physical evidence for the planting of trees and shrubs in temple precincts in Rome includes excavated root cavities, plant containers, and depictions on artifacts. In 29 BC a temple to the deified Julius Caesar was built in the Roman forum.³⁵ The remains of soil and roots embedded in rows of travertine marble containers on the west and north sides of the temple suggest that these containers held plantings: organic remains point to laurel trees. A marble plan carved in the reign of Septimius Severus at the beginning of the third century AD, known as the *Forma Urbis Romae*, is a valuable source of information not only on the buildings in Rome, but also on groves associated with several structures.³⁶ The *Forma Urbis*, together with archaeological exploration of the sites depicted on the marble plan, clearly shows that formal gardens and groves were integral design elements in the temples of Rome. Plantings are represented in a variety of ways on the marble plan. Rows of joined rectangles shown in the courtyard of the Templum Pacis (later called Forum Pacis), dedicated by Vespasian in AD 75 in celebration of his victory in Judaea, were thought to represent rows of trees, hedges, or flowerbeds; but recent excavation at the site indicates that these were masonry features, such as water basins and podiums for sculpture.³⁷ Between the masonry features were double rows of amphorae used

as planting pots, the soil containing the carbonized remains of rose bushes. Rows of thin linear features are shown on three sides of the courtyard surrounding the prostyle temple of the deified Claudius, the *Templum Divi Claudii*, built in the mid-first century AD and restored under Vespasian.³⁸ These may have been hedges, although Richardson suggests that arbors might be more likely.³⁹

More common are rows of dots in the plan's depiction of other planted areas. The *Forma Urbis* shows the courtyard of Trajan's forum with two rows of such surface features. That these are meant to represent rows of trees was suggested after excavations in the 1980s by James Packer, who discovered what he took to be a large planting pit on the edge of the courtyard and, hence, reconstructed two avenues of trees on either side of the square.⁴⁰ More recent excavations in the forum of Trajan, however, have shown that the pavement on the edges of the forum, where the outer row of dots on the *Forma Urbis* is located, was not pierced by planting pits, although it remains uncertain whether the inner row of dots on the plan might indicate plantings of some kind.⁴¹

Numerous drilled dots and lines also are shown on the *Forma Urbis* in the middle of a building named the *Adonaea*.⁴² The hypothesis that these represent some kind of plantings, either trees or shrubs, was based on the knowledge that, in classical Athens, potted plants were part of the ritual practiced in the cult of Adonis, the youth whose premature death was mourned by Aphrodite, but who returned to life for six months of the year.⁴³ In the early 1990s, excavations of a site on the Palatine Hill in Rome known as the *Vigna Barberini* uncovered

the remains of a system of plantings that were tentatively identified as belonging to the *Adonaea*.⁴⁴ Since then, the French excavators have reason to believe that the excavated foundation walls and planting pots belonged to the temple of the oriental god Elagabal, erected by the emperor Heliogabalus in the early third century AD and reconsecrated between AD 222 and 235 as the Temple of Jupiter Ultor.⁴⁵ The *Heliogabulum* is not shown on the *Forma Urbis* because it was built after the marble plan was made. Surrounded by porticoes on all four sides, the temple stood in the center of a courtyard that was paved, but the paving was interrupted by four rectangular planting beds irrigated by underground channels. Although it is not certain what type of plants grew in the courtyard, low plantings of bushes and small trees have been suggested. The pots used for plantings were halved *amphorae*, the majority of which are wine and oil *amphorae* of the late second and early third century AD. The discovery of broken *amphorae* reused as planting pots – as in the *Templum Pacis* of Vespasian and in the garden beds flanking the Canopus at Hadrian's Villa in Tivoli – makes it apparent that such containers often had a “second life” in the context of secular and sacred gardens.⁴⁶

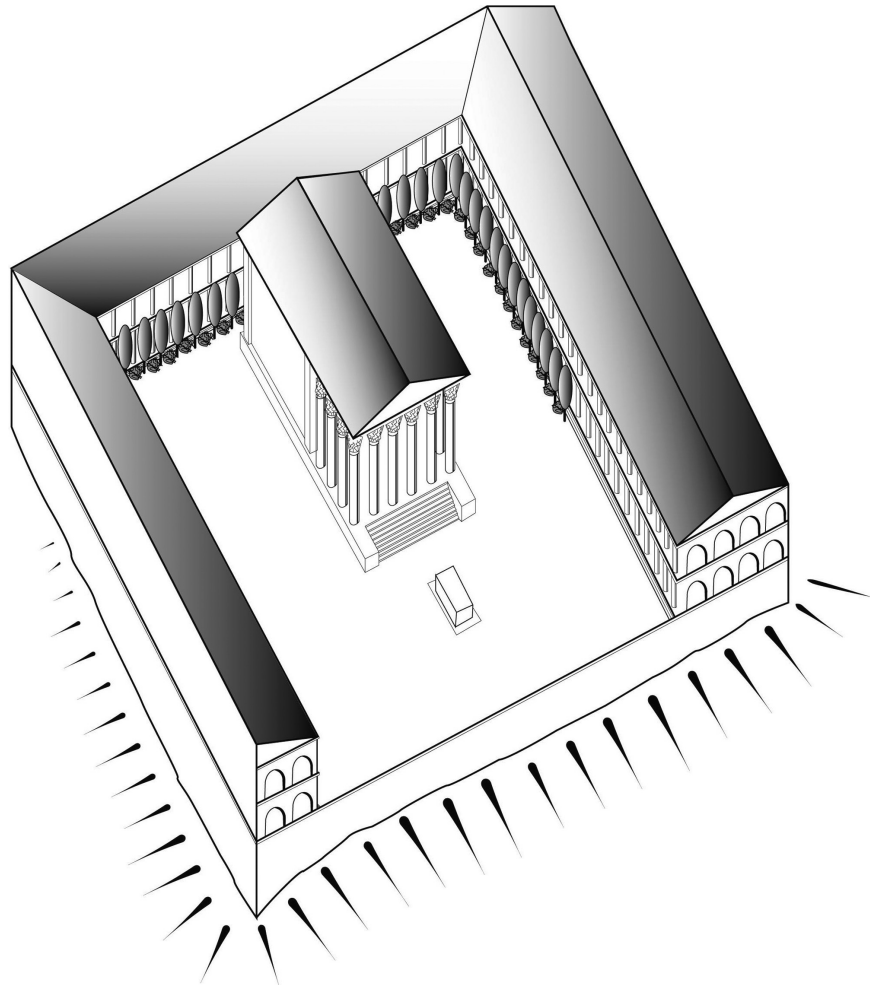
Finally, a building called the *Divorum* is depicted on the *Forma Urbis*.⁴⁷ This was a complex built by Domitian to honor his father and brother, and it is referred to as the *Templum Divorum* in an inscription of AD 153.⁴⁸ The complex is a rectangular courtyard framed by colonnades with two small temples on either side of the entrance arch. In the courtyard are regularly spaced dots, plausibly interpreted as rows of trees.⁴⁹

There is also literary evidence for sacred gardens and groves in and around the city of Rome, including a reference to an early event in the city's history. A conflict between the Romans and the last king and tyrant of Rome, L. Tarquinius Superbus (534–510 BC), saw the Romans drawn up to do battle with the expelled Tarquin outside the city in the Arsian grove (*Silva Arsia*) and the Aesuvian meadow, both sacred places.⁵⁰ A shrine, known only from inscriptions, is that of Bellona Pulvinensis in the northeast part of the city. A funerary inscription of a priest of Bellona from Rome refers to the shrine as having been within a grove (*in luco*).⁵¹ Other groves (*luci*) include that of Vesta, which had disappeared by the time of Cicero, and one at the Temple of Venus Libitinae, who was associated with the funeral undertakers of Rome.⁵² This grove, just outside the Esquiline gate in the western part of the city, is recorded in funerary inscriptions naming individuals who lived “near the grove of Libitinae” (*ab luco Libitinae*).⁵³

Sacred groves, known largely from written sources, were connected with three Latin centers: the *nemus* of Diana Nemorensis near Aricia on Lake Nemi; the *lucus* of Ferentina at the foot of Mons Albanus; and the *lucus* of Diana at Corne near Tusculum.⁵⁴ At the Sanctuary of Diana Nemorensis, however, not only literary sources, but also the archaeological discovery of planting pits, indicate that the site was planted with a sacred grove. Also at Nemi the myths associated with Diana's cult suggest that this sacred wood is of great antiquity, though the earliest evidence for a cult on that site belongs to the end of the sixth century BC (see below).⁵⁵

Other written sources on sacred trees in the city are, in part, closely connected with the foundation myths of Rome. A fig tree growing in the Forum Romanum was sacred, a reminder of the tree under which the wolf suckled Romulus and Remus, the mythical founders of Rome.⁵⁶ Whenever the tree shriveled up it was thought to be a portent, and it had to be replanted more than once by the priests. According to Pliny, the shrine of Quirinus, a god assimilated with Romulus, was one of the most ancient temples in the city, and in front of it two sacred myrtles grew for a long time.⁵⁷ One of them, the patricians' myrtle, flourished as long as the Senate did; the other one, the plebeians' myrtle, later grew stronger, when the influence of the plebeians dominated over that of the Senate. Ovid also mentions a shady grove in conjunction with this sanctuary.⁵⁸ Sacred trees with magical powers related to the varying political fortunes of the empire were known at other sites in Italy. In early Roman mythology, Aeneas, the fugitive Trojan prince, visited the sacred grove of Diana on Lake Nemi and was able, as the future founder of Rome, to pluck the “golden bough” (probably from the holm oak) with divine assent, presenting it to the sybil of Cumae.⁵⁹ Later, the Rex Nemorensis (King of the Woods) was an office held at Diana's sanctuary by a runaway slave who, after plucking a bough (“golden bough”) from a tree in the sacred grove, could defeat the previous Rex Nemorensis in combat and be joined in sacred marriage with Diana's high priestess.⁶⁰ Furthermore, at Nocera in Campania an elm in the sacred grove of Juno was trimmed during the wars against the Germanic Cimbri in the late second century BC because its branches

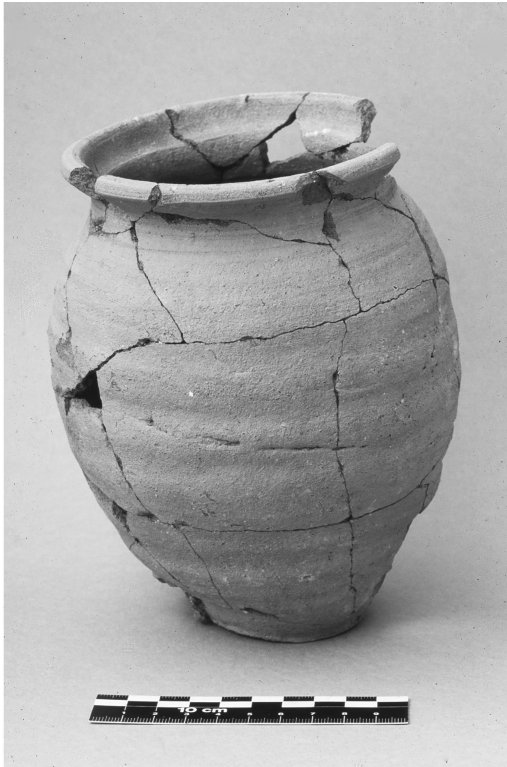
Figure 5.3 Temple of Venus, Pompeii, isometric reconstruction.



hung down onto the altar. The elm recovered immediately and began to flower, and from that time on “the power of Rome recovered after being ravaged by disasters.”⁶¹

Temple gardens of the first centuries BC and AD are attested at Pompeii, but, since most archaeological attention has been focused on private gardens, there are few certain examples there of plantings in a religious context. Excavations by the author in 1998, 2004, and 2006 at the Temple of Venus produced clear evidence that this sanctuary was built in the mid-first century BC after Pompeii had become a Roman colony, and at the same time the courtyard surrounding

the temple was planted to create a sacred grove (Figure 5.3).⁶² The goddess of fertility, Venus, was connected more than any other with vegetation and growing plants.⁶³ The largest temple in Pompeii, dedicated to the patron goddess of the city, could hardly have failed to possess gardens, although no traces of them were found during the original excavations between 1898 and 1900.⁶⁴ In the recent explorations on three sides of the courtyard in front of the porticoes, planting pits and root cavities have been identified. The pits contained ceramic pots in a complete or fragmentary state: vessels alternated between those containing one hole in the base and those with one hole in the base



A

Figure 5.4A Ceramic planting pot from the precinct of the Temple of Venus, Pompeii, early first century BC.



B

Figure 5.4B Ceramic planting pot from the precinct of the Temple of Venus, Pompeii, early first century BC, drawing.

and three in the lower body (Figures 5.4A, 5.4B). Between the pits with vessels were pits with no pots. This regular pattern may reflect tall vegetation alternating with shorter vegetation, or slender plants alternating with bushier, or it may simply imply a sequence of trees and shrubs that required propagation in ceramic pots and those that did not need containers to develop. Possibly laurels, roses, and myrtles grew in these containers, the latter two being particularly sacred to Venus.⁶⁵ But whatever bushes or trees grew in these pots, they needed to be supported by wooden stakes. One of these stakes was driven into the ground next to a complete pot; another punctured it. The sacred grove of Venus, almost certainly a *nemus*, was very much an “architectural” garden

in which alternating types of trees and bushes were planted parallel to the columns of the colonnades surrounding the courtyard, the trees echoing the rhythms of the columns and visually highlighting the temple as one approached from the south. In its layout of regular plantings on three sides of the temple the grove of Venus resembled those at the Temple of Hephaistos in Athens and the Temple of Juno at Gabii. This design of formal plantings surrounded by a *porticus triplex* in sanctuary architecture clearly became popular at locations throughout Italy and the Mediterranean, as Octavian’s victory monument at Nikopolis demonstrates. Evidence recovered in the excavations at the Temple of Venus also clearly indicates the replacement of some of the trees in

the grove and other rarely attested maintenance work by gardeners. Furthermore, analysis of the soil in the planting pots points to the practice of soil enrichment or the use of fertilizers in the plant nursery in which these trees and bushes were raised before being transferred to the sanctuary. This is the first evidence for plant nurseries supplying cult organizations with the desired vegetation for the landscaping of a sanctuary. In the early first century AD the sanctuary was partially rebuilt and refurbished; at the same time the sacred grove was destroyed or intentionally abandoned, and the courtyard was paved with a layer of white mortar.

The temple complex was badly damaged in the earthquake of AD 62, and reconstruction of the buildings of the sanctuary was only just begun when Vesuvius erupted in AD 79. No traces of plans to incorporate a grove or a garden have survived from this last phase in the life of the sanctuary.

Further excavations in 1998 at another site in Pompeii, the courtyard of the Temple of Apollo (Figure 5.5), also uncovered archaeological evidence for plantings, although the evidence is not as clear as that at the Temple of Venus.⁶⁶ Several pits up to 40 centimeters deep were found along the east side of the Temple of Apollo, some of them containing large fragments of Italian wine amphorae. The stratigraphic sequence and the evidence from artifacts suggest that the pits discovered in 1998 date to the Augustan period when the temple precinct was remodeled, perhaps including the planting of the courtyard.⁶⁷

The Temple of Dionysos outside the southern city wall of Pompeii was excavated between 1947 and 1948, but it was

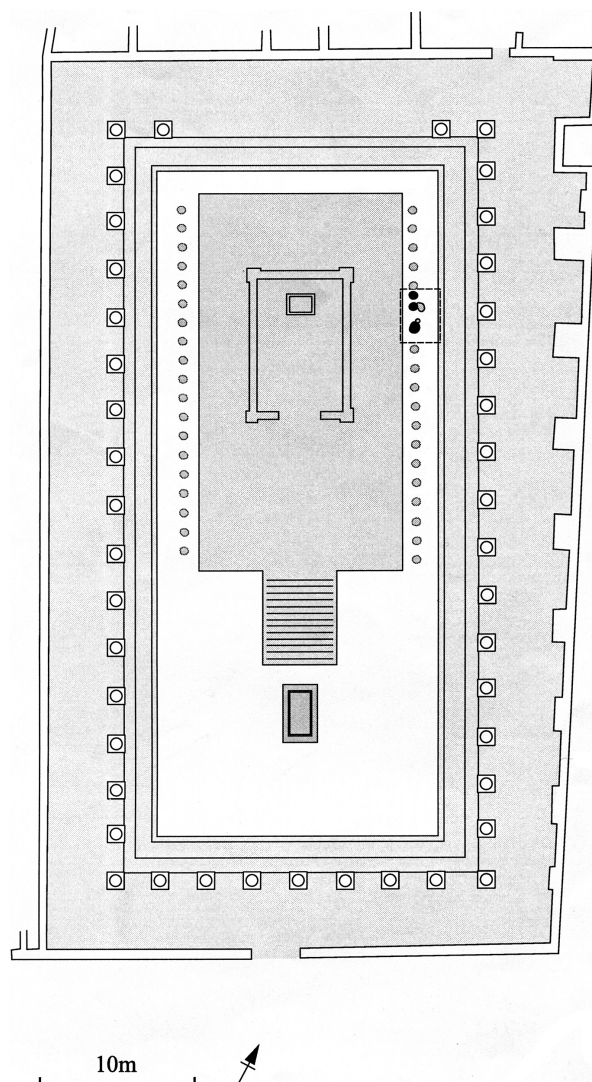


Figure 5.5 Precinct of the Temple of Apollo at Pompeii, plan showing the locations of excavated (black) and conjectural (grey) planting pits of the early first century AD.

not until 1973, when the courtyard of the sanctuary was re-excavated by Wilhelmina Jashemski, that evidence for plantings was retrieved.⁶⁸ In the courtyard were masonry dining couches or *triclinia* used for Dionysiac festivals. The *triclinia* were surrounded by a vine arbor and trees, planted around the couches to provide the participants with shade (Figure 5.6). Root cavities of the vines and trees, as well as the postholes of the arbor, survived. Furthermore, pronounced furrows in the

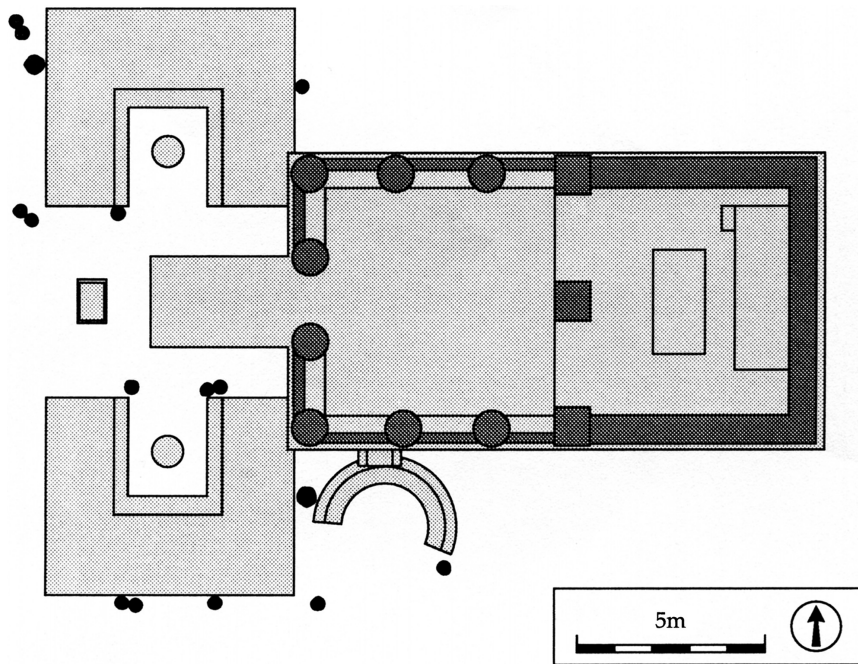


Figure 5.6 Temple of Dionysos, Pompeii, plan, *triclinia*, first century AD, black dots represent plantings, after Jashemski 1979, fig. 244.

soil indicate that the rear part of the precinct had been planted with rows of vines, the symbolic meaning of which is obvious in the precinct of the god of wine.

Temples were often the owners of vast estates, some of them located at a considerable distance from the sanctuary itself. Numerous inscriptions recording such temple property in Classical and Hellenistic Greece survive, especially on the island of Delos where officials of the sanctuary of Apollo managed its estates located on that island and on the neighboring islands of Rheneia and Mykonos.⁶⁹ The tradition of maintaining estates worked by tenants for the profit of the temple continued in the Roman period. A Greek inscription of the fourth century AD from Herakleia in Sicily preserves a lengthy list of temple lands, including olive groves, vineyards, and woodlands.⁷⁰ The tenants were responsible for planting vines and trees and caring for them, as well as replacing old and unproductive vines or trees with

new ones. Inscriptions can also preserve the regulations on the use of temple lands, for example the prohibition against cutting down trees or removing wood from the property. This kind of detailed information on the maintenance of temple lands and legal issues is not found in the literary sources. Inscriptions are equally useful sources of information on the donation of trees to sacred precincts. It is only because such texts survive, for example, that we know of the existence of a sacred olive grove of Athena on the acropolis of Lindos on Rhodes.⁷¹

Evidence of any kind for Roman temple gardens and groves outside Italy, Greece, and Asia is rare. In North Africa, however, Wilhelmina Jashemski uncovered clear evidence for both domestic and sacred gardens.⁷² In 1990 she excavated the remains of a Roman temple grove at Thuburbo Maius in Tunisia. At this site, a row of six root cavities of trees was found in a narrow test trench on one of the long

sides of the courtyard precinct between the temple and the surrounding colonnaded halls. The size of the root cavities suggested to the excavator that trees or large shrubs, possibly laurels, were planted in them. Rows of plantings, like those at the Temple of Hephaistos in Athens and those on the *Forma Urbis* of Rome, can be reconstructed at this site. Further evidence for a temple garden outside Italy comes from Munigua, about 50 kilometers northeast of Seville. Excavations have uncovered the remains of a temple complex on terraces dating to the second half of the first century AD. The two terraces flanking the temple were paved, but circular holes in the pavement indicate that the upper terrace was planted with trees or bushes.⁷³

Throughout the Greek and Roman world, sacred gardens and groves were revered as places belonging to and inhabited by the gods. They were places in which sacrifices to those gods took place, but also where other religious rituals and festivals pertinent to the cult were celebrated. Furthermore, these sacred sites were places of refuge and asylum, in which divine protection against injury and injustice was sought. Temples and sacred groves could be so closely associated with the city or landscape in which they were located that they came to be considered a symbolic equation of that place. The reverse of some coins of Vespasian and his son Titus, minted after the suppression of the Jewish revolt in AD 69, makes use of the motif of a single date palm, a tree closely associated with Judaea, as a symbol of that province.⁷⁴ Diodorus Siculus in the first century BC portrayed the fertile groves and gardens near Panara as giving the place a divine majesty and making it appear worthy of the gods of the country.⁷⁵

The sacred groves of the Temple of Apollo at Daphne outside Antioch on the Orontes in Syria were often praised in Roman literature.⁷⁶ They are depicted summarily in the fourth century AD as a landmark of Antioch on an illustrated map of the ancient world, known today in a medieval copy as the *Tabula Peutingeriana*.⁷⁷

Groves and gardens connected with the gods of a city were viewed as emblematic of the heavenly power and divine sanction of the place. The destruction of such sites struck a blow to this power, and physically and symbolically reduced it to ashes. There are many recorded incidents of this kind of intentional damage, and not only in the Roman period. Ashurbanipal's army destroyed the sacred groves of Elamite Susa in 639 BC, and recorded this destruction: "Their secret groves, into which no stranger ever penetrates, whose border he never oversteps, – into these my soldiers entered, saw their mysteries, and set them on fire."⁷⁸ Philip V of Macedon, who attacked Pergamon in 201 BC, ordered his army to cut down the trees in the Sanctuary of Athena Nikephoros, the city's presiding deity and dynastic protectress of the Attalid kings of Pergamon.⁷⁹ The destructive activity of Sulla in the sacred groves and *gymnasia* in the suburbs of Athens, the pride of this venerable city of learning, dealt a serious blow to the Athenian psyche. Pausanias refers to Sulla's behavior toward Athens as particularly savage.⁸⁰ But Athens recovered from this blow, albeit slowly. The groves were replanted and the *gymnasia* rebuilt; as educational institutions, the shady Athenian suburbs captivated the Roman imagination and attracted more visitors and scholars in the Roman period than they had ever done before.

Chapter 6

GARDENS IN BATHS AND PALAESTRAS

Janet DeLaine

THE IDEA THAT gardens were associated with public baths and *palaestrae* (exercise courts) has its origins in the ancient sources relating to the most celebrated of all Roman baths, the Imperial *thermae* of Rome. Thus, Grimal, in his seminal 1943 study of Roman gardens, restored the wide outer precincts of the Imperial *thermae* with shade trees, formal walks, running water, fountains, and statuary, seeing inspiration in Greek *gymnasia* on the one hand and Roman luxury villas on the other.¹ These reconstructions were then extrapolated to apply to all baths which included any open space, particularly those with *palaestrae*, to support the persistent notion of gardens in Roman baths, which is current in modern scholarship.² Since Grimal, however, archaeological evidence for and methodological approaches to the study of both baths and gardens have grown apace, making a re-evaluation timely. In addition, we need to extend our study to include the evidence for gardens in *palaestrae* that were independent of baths, or to which baths formed only a minor adjunct. The evidence presented here for bath gardens is not as clear as that relating to domestic gardens, but it does reveal that the *idea* of a garden was fundamental to the concept of luxury in baths, even though many may not have had any actual plantings. This study also reveals that shaded spaces for physical exercise may more likely have been found in the *campi* of the western Empire than in baths, perhaps as idealized imitations of either the natural landscapes for physical training in the days of

Rome's heroic past, or a lingering tradition of the Greek *gymnasia* of the East.

PAUCITY OF EVIDENCE

Even though baths form numerically the largest single group of excavated public buildings in the Roman world,³ clear archaeological evidence for possible gardens in them is still extremely hard to find, as surveys by Nielsen and Yegül in the early 1990s attest.⁴ The problem affects even the exceptionally well-preserved public baths of Pompeii and Herculaneum, where the evidence is at best ambiguous, even though the early excavators believed there were gardens.⁵

The identification of gardens in baths is made difficult by the priorities of many excavations and the nature of the physical remains of plantings. As gardens were generally external to the main bathing block, they have not been priorities for most excavations, especially those of the nineteenth and early twentieth centuries, which focused on structures. In addition, particularly in the western Empire, the survival of Roman cities makes modern large-scale excavation rare. Even where open spaces are excavated with gardens in mind, the removal or destruction of ancient soil levels are often so extensive as to have removed all traces of ancient cultivation. Most public baths also had long histories and underwent many periods of rebuilding which may have affected any gardens, while in the late Empire open areas were often abandoned or drastically reduced in size.⁶ The bath-gymnasium complex of Salamis on Cyprus reveals the difficulties (Figure 6.1). A nearly complete fifth-century marble inscription, reused as

a paving slab in the main east portico of the court (originally the *palaestra*), records repairs to a bath-gymnasium and the laying out of a garden where previously none had existed.⁷ In its final phase, however, the southern half of the former *palaestra* was paved over an earlier sanded surface, while the northern half had only a foundation of stones. No physical traces of a garden appear to have been found.⁸

THE IMPERIAL *THERMAE*

The only baths where any detail of what might have constituted gardens can plausibly be reconstructed are the Imperial *thermae*, but based more on literary than on archaeological evidence. Although most sixteenth- to early nineteenth-century studies of *thermae* reconstructed precincts with alleys, fountains, and formal plantings, differences among individual reconstructions suggest a lack of physical evidence and a reliance on ancient literary sources combined with contemporary Italian ideas on garden design. While some physical remains of most of the Imperial *thermae* do survive,⁹ only those of Trajan, Caracalla, and Diocletian preserve parts of their outer precincts, where evidence for gardens might be expected. Even here, however, remains of water systems can only suggest the existence of planted gardens. In the Baths of Trajan there are drains and water pipes in front of the southeast *exedra*, and in the Baths of Caracalla a single water inlet has been found in front of the hot rooms to the west of the *caldarium*, both indicating fountains.¹⁰

Literary sources make it clear that Agrippa's *thermae* were associated with

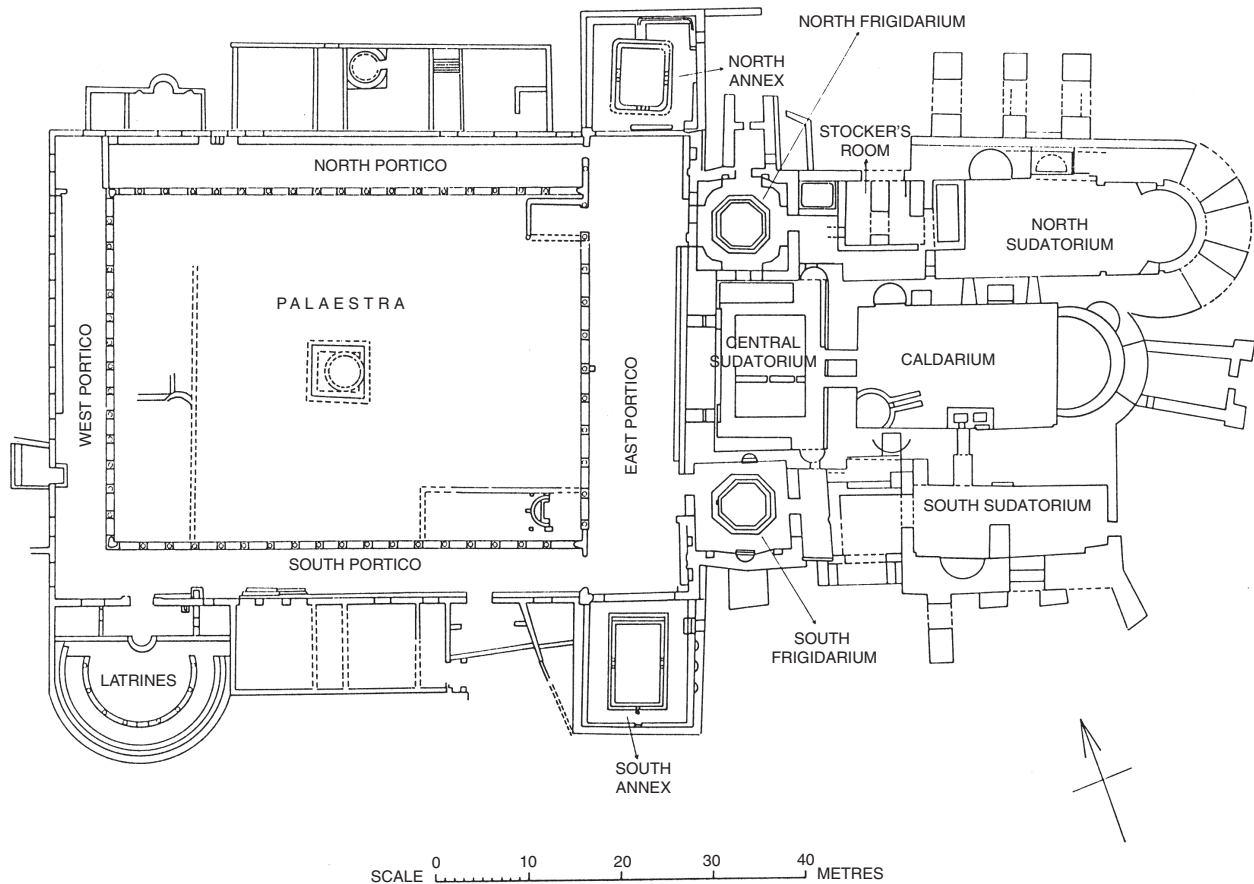


Figure 6.1 Bath-gymnasium complex at Salamis, Cyprus, plan, after Yegül 1992, fig. 403.

his private *horti* (suburban pleasure gardens), both of which he left to the Roman people in his will.¹¹ The *horti* incorporated a grove (*nemus*) with plane trees and a pool (the *stagnum*), features associated with the Greek *gymnasion*. In addition, the gardens were decorated with works of sculpture, including animals, while outside the baths was displayed the famous Apoxyomenos of Lysippus, sculptor at the court of Alexander the Great.¹² Such sculptural displays had long been associated with public porticoes, such as the Porticus of Metellus or those behind Pompey's theater, as well as with the luxury villas of the Roman elite.¹³

The location of the *horti* and *thermae* of Agrippa in the central Campus Martius,

which before the Agrippan building program was largely a public park owned by the state, gave the Baths of Agrippa a double sense of being 'gardens' – those of the Campus Martius and those of the *horti*. This conjunction of a public park and private gardens was essential in providing, both practically and conceptually, a model for later *thermae* in Rome. Indeed, Nero's gymnasium and his later baths, which faced onto Agrippa's *stagnum*, may also have occupied part of the same *horti*.

The next two of the Imperial *thermae*, the Baths of Titus and of Trajan, were both part of a move, which included the Colosseum, to turn over some of Nero's Golden House, the largest urban *horti*

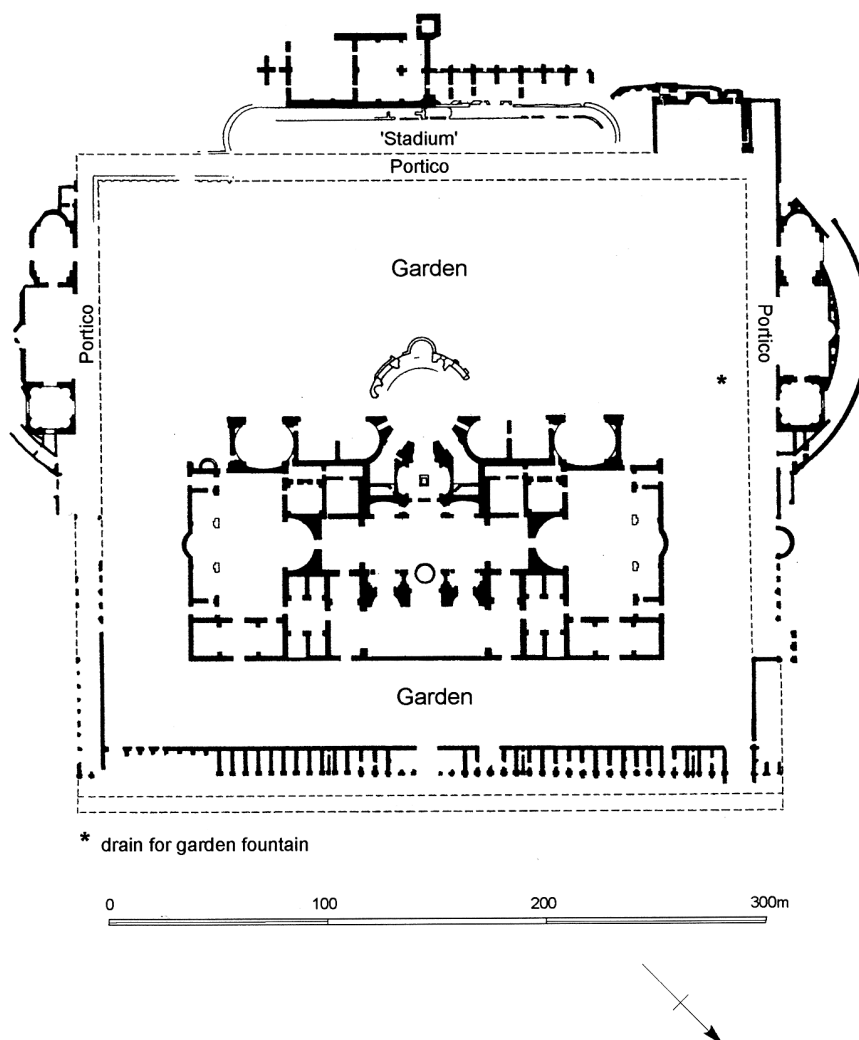
ever created, to the people of Rome. The Baths of Titus were built alongside the entertainment pavilions of the Esquiline wing when it was still functioning, so that the decision to build baths on this particular site may have been influenced by the setting of Agrippa's baths in his *horti*. It therefore appears quite logical that the Baths of Trajan were subsequently built on top of the surviving wing of the Golden House, turning what was once apparently devoted to private entertainment into public enjoyment.

It is, however, the Baths of Caracalla (Figure 6.2) that demonstrate most

clearly the canonical form of the Imperial *thermae*, epitomized in Grimal's phrase 'villas of the people'.¹⁴ These were constructed in the area of the former *horti* of Asinius Pollio. According to La Rocca, a colossal sculpture from the baths – the Farnese Bull depicting the punishment of Dirce – is the one mentioned by Pliny the Elder as part of Pollio's *monumenta*.¹⁵ Thus, an important piece of sculpture became a link to the past when the *thermae*, with their public gardens, replaced former private *horti*.

The layout of the Baths of Caracalla, like that of the Baths of Trajan, also shows

Figure 6.2 Baths of Caracalla, plan.



influences from *horti* and earlier *thermae*. A miniature *stagnum* was incorporated into the actual bathing block in the form of an outsized *natatio*. The outer precinct in particular can be seen as taking inspiration from the Campus Martius, the *horti* of Rome, and the Greek gymnasium. Gardens, porticoes, cultural appendages such as libraries, lecture rooms, and art galleries, and open areas for physical exercise or athletic display, are here integrated into a formal precinct. We would also expect formal walks, rows of shade trees, fountains, and perhaps the kind of formalized plantings generally associated with *horti* or villa gardens. The overall emphasis, however, appears to have been on the open space, as it was with the grassy Campus Martius even into the Imperial period,¹⁶ and with the early Greek gymnasium. The resulting *salubritas* may also have been seen to contribute as much to the health of the city as did the bathing facilities themselves under the watchful eyes of their tutelary deities, Asclepius and Hygieia. The stade-long, half stadium-shaped terrace at the rear of the precinct, like the “theater” area of Trajan’s *thermae*, was arguably designed for spectators to watch athletic displays or practice.¹⁷ On the other hand, the internal courts of the Baths of Caracalla, usually identified as *palaestrae*, have no evidence for any planting but were completely paved in mosaic of precious marbles, suitable only for simple exercise as part of the bathing routine.¹⁸

The importance for the Romans of the health-giving properties and the rural associations of green open spaces should not be underestimated. Ancient

writers compared urban life unfavorably to rural.¹⁹ If we add the layers of Hellenistic culture, luxurious architecture, and decor, and even the religious associations of groves, like those beside the Baths of Agrippa, to the specific pleasures of bathing, it is no wonder that the *thermae* offered an equivalent to *horti* as the focus of urban leisure. Wallace-Hadrill has argued strongly for the image of the *hortus* as the paramount symbol of *luxus* and *otium* in late Republican and early Imperial Rome and Italy, demonstrating the rejection of political ambition for the elite, but presumably appealing to the politically powerless lower classes for its positive resonance as part of that elite life from which they were otherwise barred.²⁰ The *thermae* were a part of that experience, one that made full play with the luxury of water.²¹ In addition, the setting of the Baths of Agrippa and Nero in the Campus Martius, and the reflections of that location in the layout and features of the later *thermae*, created a distinctly Roman experience replete with long religious and military associations. At the *thermae* a visitor could indulge his feelings for Rome’s past: imagining himself as a member of a community of citizen-soldiers little removed from the soil; enjoying the rarefied atmosphere of a bucolic idyll as a cultured Hellene; living vicariously the life of the rich and powerful, surrounded by luxury beyond his means; being emperor for a day, a god on earth; or walking through sacred groves like the very gods themselves. In this fantasy world, the polyvalent ambience of the garden was surely one of its chief attractions.

GARDENS IN OTHER PUBLIC BATHS

The Imperial *thermae* must have formed the models for gardens in other large public baths, in the form of shade trees, grassy areas laid out with formal walks, water features, and sculpture, accommodated in secondary spaces external to the bathing block. The question remains, however, as to how this aspect of the Imperial *thermae* might have been translated into a form suitable for smaller establishments, such as that at Salamis, where a limited open space might have needed to fulfill multiple functions. Disregarding what are clearly service courts, *palaestrae* and, in a limited number of cases, courts around open-air pools are the only places in most public baths that could possibly include planting areas. This immediately restricts the possibilities of gardens in baths to the more lavish establishments, i.e., to the *thermae* as defined by Nielsen,²² as many small urban baths lacked any open space at all other than service courts.

A clear understanding of the original surface treatment of a *palaestra* is therefore necessary in establishing whether plantings existed. Unfortunately, such detail has often been neither recorded nor discussed in publications, even when the area has been carefully excavated. In the rare cases where this information does exist, it is clear that the majority of *palaestrae* from all over the empire were paved, and such surfaces were probably the norm, especially in the later Empire.²³ Paving materials included mosaic (e.g. the 900 m² of the mid to late third-century Baths

III-2B at Anemurium, and the roughly 2000 m² of the Antonine Forum Baths at Ostia), *opus spicatum* (e.g. the Large Baths of Hadrian's Villa), and stone or marble slabs, (e.g. the Suburban Baths of Pompeii, and the later phases of the Baths-Gymnasium at Sardis).²⁴ Any of these paved courtyards may, of course, have once contained potted plants, but it is perhaps indicative that even in the Suburban Baths at Pompeii – one case where the evidence might have been expected to survive due to the eruption of Vesuvius – no such pots were found.

Evidence for planting might be expected more from unpaved *palaestrae*, but even in the public baths of Pompeii and Herculaneum the situation is unclear. The main area of the *palaestra* of the Stabian Baths appears to have had consecutive floors of beaten earth,²⁵ as might be expected in a place dedicated to exercise, whether boxing and wrestling or ball games, with a paved strip running the whole length of the west side of the *palaestra*, presumably for some form of bowls. Nowhere, however, is there clear evidence for any planting. Likewise, the forecourt of the Suburban Baths at Herculaneum, often interpreted as a *palaestra*, in AD 79 had a floor of beaten earth over an earlier paving of *opus signinum*, but no signs of any plantings.²⁶

Far less clear is the situation with the Forum Baths at Pompeii and Herculaneum, where the original excavators identified the small porticoed *palaestrae* as gardens, on apparently little evidence.²⁷ Perhaps bare soil rather than a paved area suggested plantings, but the example of the Stabian Baths shows that such a conclusion cannot be

supported. Indeed, the *palaestrae* of both Forum baths have three-sided porticoes with a wall for the fourth side, which could have been used for ball games, as mentioned in an inscription from Delphi.²⁸ Not surprisingly, the situation at the unfinished Central Baths at Pompeii is even less clear, especially as no planting could have been carried out by the time of the eruption even if any had been intended. Of the three areas suggested as potential gardens by the early excavators, only the small light well south of the *caldarium* is at all convincing.²⁹ Although the glazing of the large windows from the *caldarium* would have restricted visibility unless moveable sections were included,³⁰ low sills suggest that a view into this light well, perhaps of garden plantings, was intended.

Garden plantings could have been possible around the outdoor swimming pools (*natationes*) in public baths. The *natatio* of the Central Baths at Pompeii was included in the *palaestra*, and this combination is relatively common in baths of the first and early second centuries in the western provinces and occasionally in North Africa (Figure 6.3A) and Asia Minor.³¹ Another possibility, also found particularly in the western provinces during the early Empire (Figures 6.3B and 6.3C), however, has the *natatio* occupying a separate space, either filling the entire free zone within a portico,³² or with a surrounding open area where garden plantings are at least possible. It might seem reasonable to imagine garden plantings around the *natatio*, but most examples in the European provinces where this can be tested were paved, and this may

in fact be typical.³³ On the other hand, a large *piscina* in an open space probably once belonging to the early third-century Small Baths under the “Maison de Bacchus” in Djemila, appears to have been flanked on two sides by a path covered by a pergola, the sockets for which still remain.³⁴

Finally, there are those baths of the Imperial period which have more than one possible *palaestra* or open areas apart from pools, and which might therefore approach the situation found in the Imperial *thermae*. The most obvious examples are buildings designed on similar lines to the Imperial *thermae* of Rome but on a smaller scale. Three of the largest, the Antonine Baths at Carthage, the Barbarathermen at Trier, and the Hadrianic Baths at Lepcis Magna, have areas beyond their *caldaria* which might have fulfilled the function of a gymnasium-garden, but none has so far been identified as such. At Carthage a garden appears precluded by the concrete make-up for the floor, while at Trier it has been interpreted as a service court, although neither this nor the one at Lepcis Magna has been completely excavated.³⁵ Most small urban baths occupied constrained spaces, and are, therefore, even less likely to have had areas set aside simply for gardens. Even the planted area once proposed for the Trajanic baths at Conimbriga has been reassessed by its excavators.³⁶

GARDEN-INSPIRED DECORATION IN BATHS

The relative absence of evidence for gardens in public baths of the empire

Figures 6.3A–C
Baths with outdoor
swimming pools.

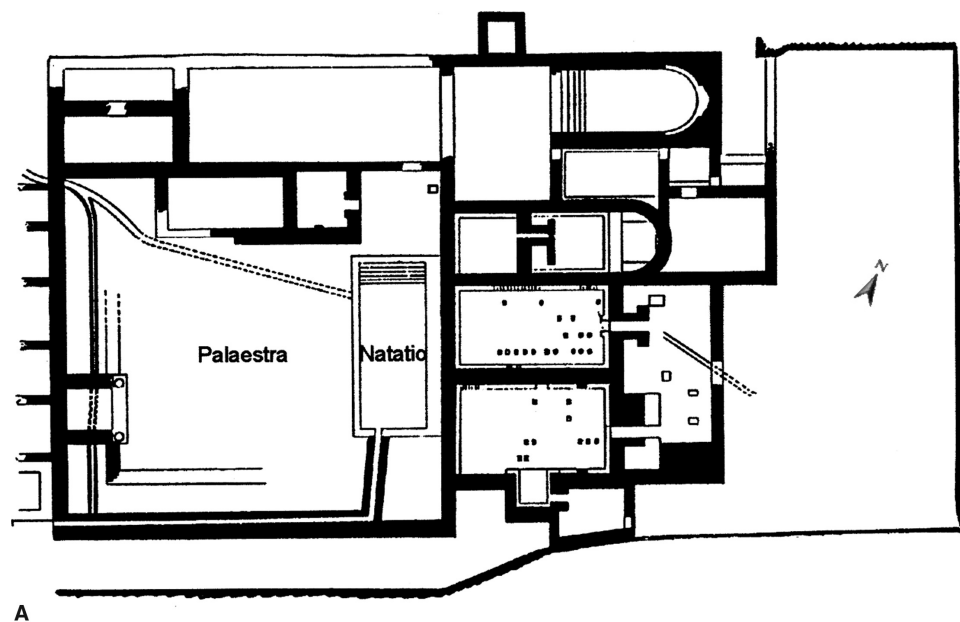


Figure 6.3A North baths, Volubilis, plan, after Thouvenot 1945, fig. 7.

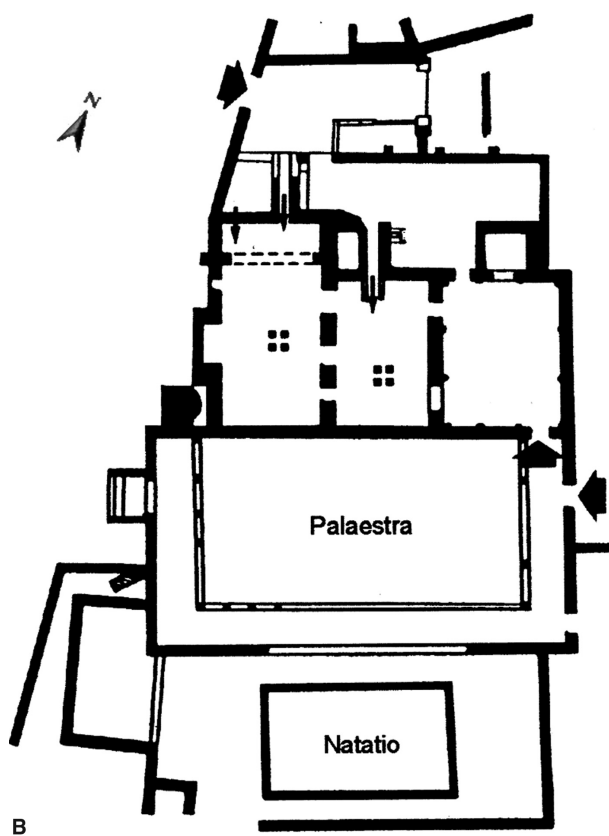


Figure 6.3B Phase 2 baths, Glanum, plan, after Nielsen 1990, fig. 109.

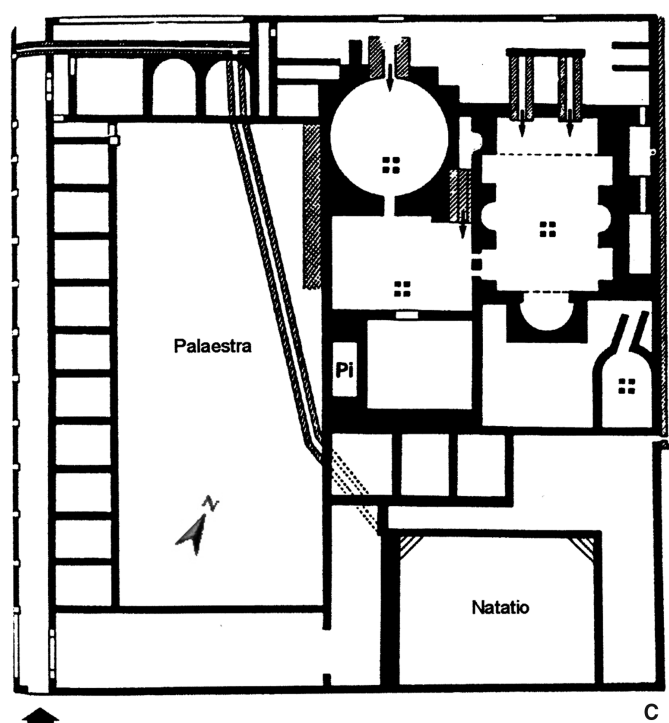


Figure 6.3C North baths, Lugdunum Convenarum, plan, after Nielsen 1990, fig. 96.

suggests that these may in fact have been rare. Nevertheless, garden themes are found in the decorative elements in many public and private baths, suggesting that the idea of the garden, if not the reality, was an important point of reference. Of the possible areas or types of decoration that might reveal garden influence – painting and/or mosaic on floors, walls, and vaults, and sculpture – only floor mosaics provide no obvious examples, the majority being either geometric patterns, *palaestra* activities, or marine deities and/or creatures. On the other hand, paintings, wall mosaics, and sculptures provide clear evidence of the influence of the garden and related nature themes over a surprisingly long period of time, from the early first to the fourth centuries AD.

True garden wall paintings appear in a small number of baths from the Vesuvian sites, and in all cases differ little in content from those found in strictly domestic environments. The best known are the paintings from the circular domed *frigidaria* of the Stabian and Forum Baths at Pompeii,³⁷ although little of either is visible today. The Stabian Baths also had garden paintings above the marble dado in the rooms flanking the outdoor pool (Figure 6.4; Figure 6.5). There were painted or real fountains as well as painted vegetation, and the paintings in the Stabian Baths also included types of statuary typical of gardens.³⁸ Among the larger private houses in Pompeii, a similar garden scene with Egyptianizing sculpture decorated the *caldarium* apse of the House of the Labyrinth.³⁹ These compositions carried the bathers' visual perspective from inside the building to the

outside, an effect enhanced in the case of the *frigidarium* of the Stabian Baths by the blue-painted vault studded with gold stars. A variation of this concept was to paint the walls as if pierced by windows looking onto a garden, as in the *atrium* of the baths in the Villa of Diomedes at Pompeii (Figure 6.6).⁴⁰ Such paintings resembled real views from some villa baths, such as those from the *caldarium* of the baths at the Villa of Oplontis or from the *frigidarium* of the Villa San Marco at Stabiae.⁴¹

Ostia provides the only other group of garden paintings surviving from public baths, largely from second- and third-century contexts, and the stylistic similarities among them suggest they may be closely contemporary.⁴² The paintings, found mainly in *frigidaria* and other cold rooms, are all on red or orange-red grounds, and some depict vegetation as well as fountains spurting from yellow/gold vessels.⁴³ While simpler than the Pompeian garden scenes, they are still generally naturalistic, differing considerably from the few examples of painted vegetation from contemporary domestic contexts at Ostia, which tend to be either part of larger figured scenes or highly stylized motifs decorating dados.⁴⁴

One clear trend, even from this limited evidence, is the association between garden paintings and water, in terms of the location of the paintings in relation to pools and the inclusion of painted fountains. Two, at least, of the very few examples of garden wall paintings which survive from baths outside of Pompeii and Ostia, come from the

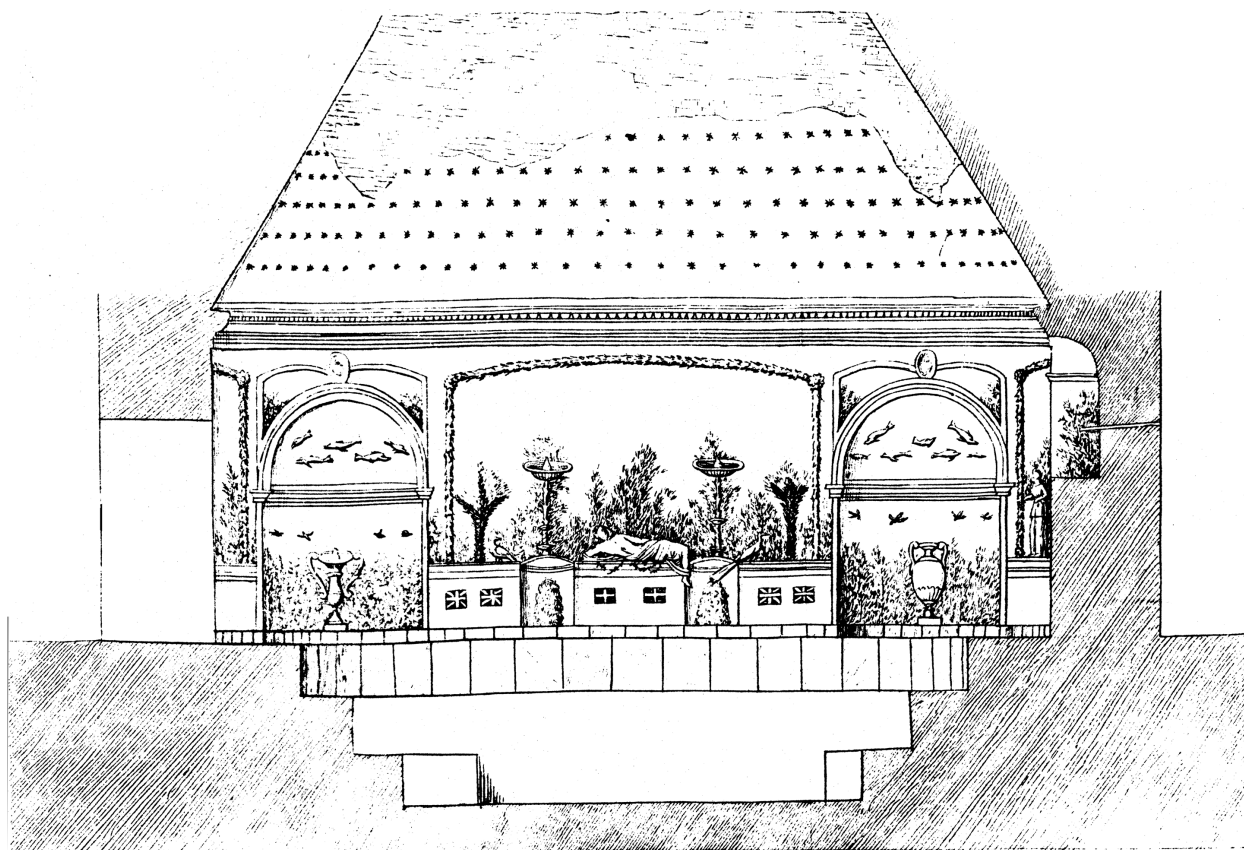
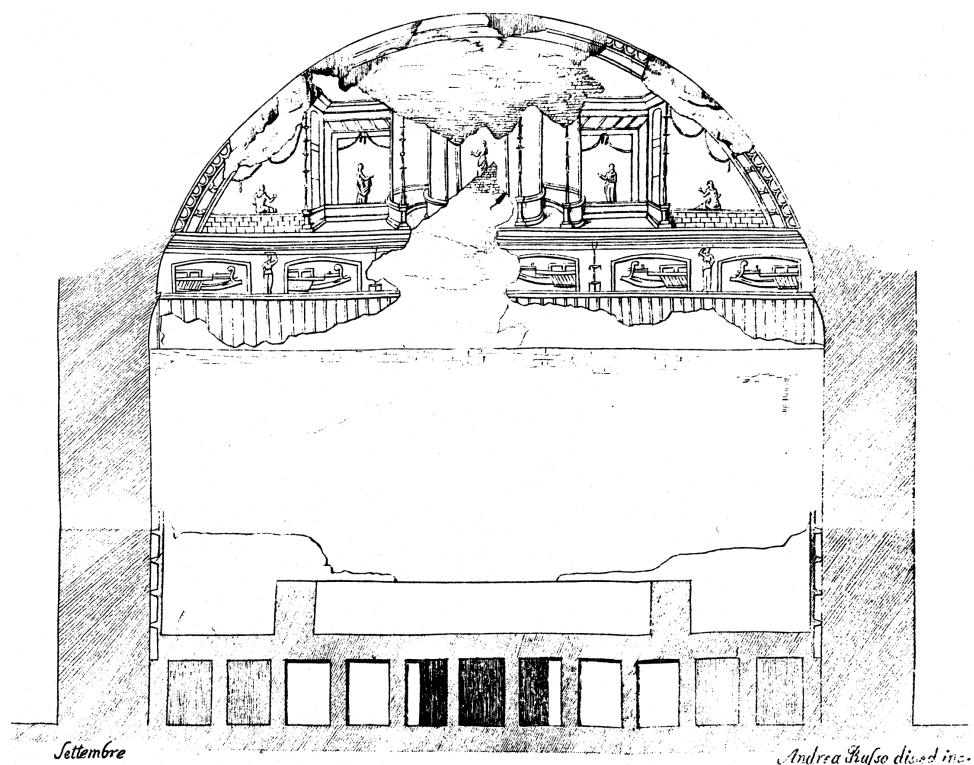


Figure 6.4 Stabian Baths, Pompeii, engraving, *Bullettino archaeologico napoletano*, no. 6, 1842–3, pl. 1.

Figure 6.5 Stabian Baths, Pompeii, engraving, *Bullettino archaeologico napoletano*, no. 6, 1842–3, pl. 1.



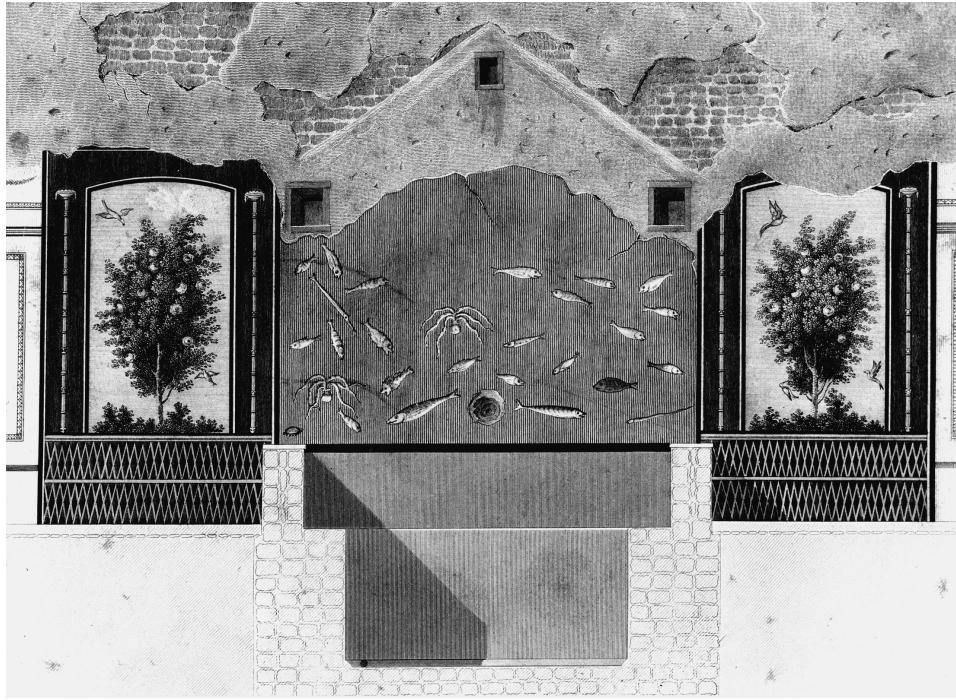


Figure 6.6 Garden paintings in the atrium of the baths, Villa of Diomedes, Pompeii, Jashemski 1993, fig. 435, engraving after *Gli Ornati delle Pareti ed i Pavimenti delle Stanze dell'Antica Pompei*, Naples, 1796.

surroundings of outdoor *piscinae*.⁴⁵ Not surprisingly, therefore, real fountains or niches and walls of cold pools decorated with pumice, shells, and glass, comparable to those associated with gardens in Vesuvian houses and villas, are also found in baths. Apart from those in the open-air cold pools of the Suburban and Stabian Baths⁴⁶ and the cold plunge in the baths of the Praedia of Julia Felix⁴⁷ at Pompeii, examples, albeit often poorly preserved, have survived in baths at Rome, Baiae, and Ostia in Italy, Argos in Greece, and at several sites in North Africa.⁴⁸ Even when the pools are indoors, these types of decoration suggest an open-air setting, one that presents nature as controlled and hence civilized rather than untamed.

Long after the Pompeian type of mosaic fountain, so strongly associated with gardens, disappeared, the use of mosaic continued for walls and vaults in

bath buildings, particularly in relation to *frigidaria*, *natationes*, and, to a lesser extent, *caldaria*. Even when not directly related to pools, mosaic designs often depict nature in contrast to the man-made world. Several public and villa baths from the second to the fourth centuries in Gaul and Spain continued to use shells as a major element in mosaic or pseudo-mosaic decoration, a common feature of garden fountains in Pompeii. Where the context is known these are again most frequently associated with basins and/or cold rooms, and occasionally heated rooms.⁴⁹ Other common motifs in these wall mosaics are scrolls and tendrils of acanthus, vine, and ivy, all suggestive of an outdoor garden or natural setting, which can be compared with the actual pergola, no doubt covered with ivy or vines, around the outdoor pool of the Small Baths at Djemila.⁵⁰ Such motifs were also used on vaults,

frequently against a white, light blue or green, or deep blue background. While survival of vault mosaics is rare in any type of building, they occur most frequently in baths, generally associated with cold rooms.⁵¹ The effect would be of a shady arbor such as the real arbors over the summer *triclinium* beside the outdoor *piscina* in the Villa of Diomedes at Pompeii, or that over the water *stibadium* by the hippodrome garden of Pliny's Tuscan villa,⁵² with the different colored backgrounds of the mosaic suggesting different times of day. Pliny also describes a nearby *cubiculum*, which had large open windows shaded by plane trees and vines so that "you can lie and imagine you are in a wood, but without the risk of rain."⁵³ This captures well the value of controlled nature with all the uncivilized risks removed, an environment that could easily have been evoked in baths using mosaic decoration.

The subjects of sculptures typically found in baths may have been to evoke a garden environment, particularly that of villa gardens, even if there were no plantings. In order to avoid general impressions, I have counted the number of sculptures of the subjects and types identified by Farrar⁵⁴ as belonging to gardens for two well-published groups of buildings: the garden and peristyle areas of fifty Roman villas in Italy; and thirty-eight public baths in the Roman Empire.⁵⁵ There are challenges inherent in the samples in terms of understanding what the surviving collections of sculpture represent, since villas and baths often had very long lives and went through numerous phases of adaptation and alteration. The final collocation of sculpture in either type of site might reflect only conditions

of abandonment and not any arrangement in place while the building was being actively used. Thus, although the villa sculptures refer only to those found in gardens, peristyles, or promenades, these might also include items originally placed in villa baths or other living quarters, while the sculptures of public baths might include works brought there in Late Antiquity from other parts of the city, or gathered together even later to feed lime kilns. As a control, I have also counted the number of bath-specific statues – those of Asclepius and Hygieia – for the two groups. The fact that there were, on average, more of these by far in the baths than appeared in the villas, and that this difference is greater than for any other type of sculpture, encourages some confidence in the exercise.

The results are summarized in Table 6.1. The subjects and types are ordered in decreasing number of examples, which shows their relative popularity within baths.

The higher number of statues of Hercules in baths versus villas is not surprising because the Italic Hercules was a deity associated with the health-giving properties of baths and hot springs.⁵⁶ More surprising perhaps are the numbers relating to the world of Venus and Bacchus (including satyrs, Pan, etc.), which are the most common images found in Vesuvian gardens,⁵⁷ yet in this survey they appear, as a group, as frequently in baths as in villas. There may be other explanations for the presence of these subjects than the desire to evoke the atmosphere of the garden. According to Pliny,⁵⁸ statues of satyrs were common in gardens as well as in public places to ward off the evil eye, "although," he continues,

Table 6.1 Garden-type statuary in public baths and Italian villas compared

Subjects and types	Public baths	Average per bath	Villas in Italy	Average per villa
Venus/Eros	51	1.34	46	0.92
Satyr/Pan/Silenus/Faun/Maenad	48	1.26	56	1.12
Asclepius and Hygieia	43	1.13	7	0.14
Hercules	26	0.68	12	0.24
Bacchus and Ariadne	23	0.61	21	0.42
water deities and nymphs	17	0.45	19	0.38
athlete	16	0.42	32	0.64
herm	8	0.21	101	2.02
ephebe	7	0.18	12	0.24
Diana/other wood deities	7	0.18	20	0.40
Muses (groups)	5	0.13	7	0.14
animal	2	0.05	33	0.66
children	0	0.00	20	0.40

"Plautus speaks of gardens as being under the protection of Venus." In baths, Venus likely represented the pleasures of the body, and in gardens, Bacchus/Dionysus was clearly tied to viticulture,⁵⁹ although bodily pleasure and wine drinking were certainly not exclusive concepts. Water deities are equally common, although perhaps more expected in the context of baths, while athletes, ephebes, and herms, more obviously related to baths, are, in fact, more common to villas. There may be some bias here, as almost 50 percent of the herms come from only two villa sites, but the difference in numbers is so great as to suggest some significance. On the other hand, representations of athletes in painting and floor mosaic are relatively common in baths.⁶⁰ Other unexpected results are the number of statue groups of Muses from baths, and this is supported by the painted Muses from the *caldarium* of the baths at Lisieux.⁶¹ The limited evidence of statuary in garden wall painting from baths conforms to the pattern established above, with the largest representation being from the world of the Dionysiac *thiasos*;⁶² the example of Dionysiac figures from one of the cold pools of the Baths

with Frescoes at Banasa, Morocco⁶³ suggests that the theme was widespread. The closeness of the links between baths and villa garden iconography is further suggested by the painted group of satyr and maenad in the garden painting decorating the outdoor *natatio* of the Stabian Baths at Pompeii, which has its closest parallel in the sculpted marble example located in the real garden beside the *piscina* of the villa at Oplontis.⁶⁴

Overall, it appears that the sculptural decoration of Roman baths has much in common with that of Roman villas and in particular villa gardens, and this is reinforced by the sculpture depicted in painted gardens from baths. The association with water is an important feature in both, as is the world of the Greek gymnasium in relation to training both the body and the mind, the latter evinced in the representations of the Muses. The overwhelming influence, however, is from the world of sensual pleasures of a mythologized nature, epitomized by the minor deities of wood and water, and by the major symbolic figures of Venus and Dionysus. The sculpture thus complements the gardens, grottoes, and pools suggested by the

other forms of decoration such as the wall mosaics, creating an overall ambiance of a nature idealized and controlled for man's enjoyment and benefit, under the protection of appropriate deities.

BATHS IN VILLAS AND HOUSES

Further clues to the apparent relation between the real gardens of luxury villas and their decoration and the conceptual gardens of Roman baths come from features of bath suites in actual Roman villas and large town houses. Particularly in the Imperial period these are often reached from central peristyle courts, which may have been gardens, but this arrangement is too much a general principle of organization to be particularly significant on its own.⁶⁵ Of more importance is the establishment of the baths as belonging to the garden by incorporating a planted miniature peristyle at the entrance to the bathing suite, a feature common to a number of villas in the Vesuvian areas.⁶⁶ This kind of feature may reappear in the villa of Montmaurin (Haute-Garonne), where in the third century the entrance to the baths passed through a portico surrounding a deep *piscina*, with a semicircular area, identified as a garden at one end, all of which was converted to a garden in the later fourth century.⁶⁷ There are also outdoor *piscinae* alongside bathing suites but set in their own courts in the manner of some public baths (e.g., Via Gabina villa 11, Phase 2b/c; Casa delle Nozze d'Argento, Pompeii), which could have been planted and/or painted as gardens.⁶⁸

It is also clear from literary sources that the view from villa baths could be designed

with care, and this is supported by some surviving examples. Seneca makes the general case that men expect views of the countryside and the sea from their baths through wide windows,⁶⁹ and the conceit is echoed in one of the villas of Melania the Younger,⁷⁰ while Pliny the Younger's hot pool in his Laurentine villa had a view of the sea.⁷¹ In Domitian's villa on the Lago di Paola (Sabaudia) one set of baths, which included a heated swimming pool, formed part of a separate wing together with *exedrae* and *diaetae* overlooking the lake at the end of a long terraced portico, with its own mosaic-paved *palaestra* behind.⁷² Baths with a sea view were a feature of other coastal villas, as demonstrated by two examples from Spain: Los Alcázares near Cartagena, in its own wing overlooking the sea and with a porticoed *palaestra* on the landward side; and El Munts near Tarragona, with one large set of baths overlooking the sea and a smaller complex including a heated swimming pool set right down on the beach.⁷³ Rivers fulfilled the same function for inland villas, for example in the villa of Nérac (Lot-et-Garonne; Figure 6.7A), where the baths are located directly overlooking the river Baïse and associated with a riverside terrace and monumental *nymphaeum*.⁷⁴ In all these examples the key element is specifically the view of a large natural expanse of water.

In other villas it appears that a natural setting for baths, however contrived, was as important as obtaining a specific view. This is the implication of Statius' description of the baths in the Villa of Manlius Vopiscus,⁷⁵ apparently set in the middle of his estate on a grassy bank and beside a river. The fact that the villa at Nennig (Figure 6.7B) has baths at the end of a long *ambulatio*, but without the excuse of a

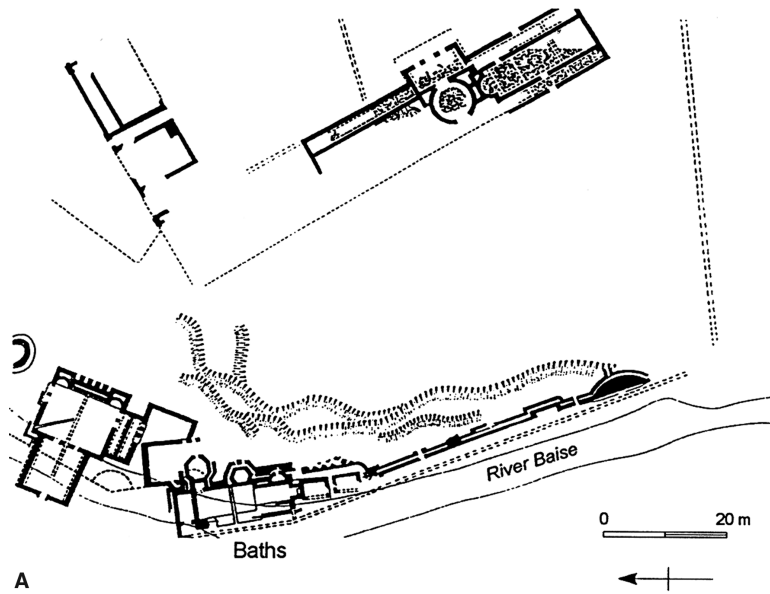


Figure 6.7A Nérac,
plan, after Gros
2001, fig. 370.

Figures 6.7A–C Scenic location of villa baths:

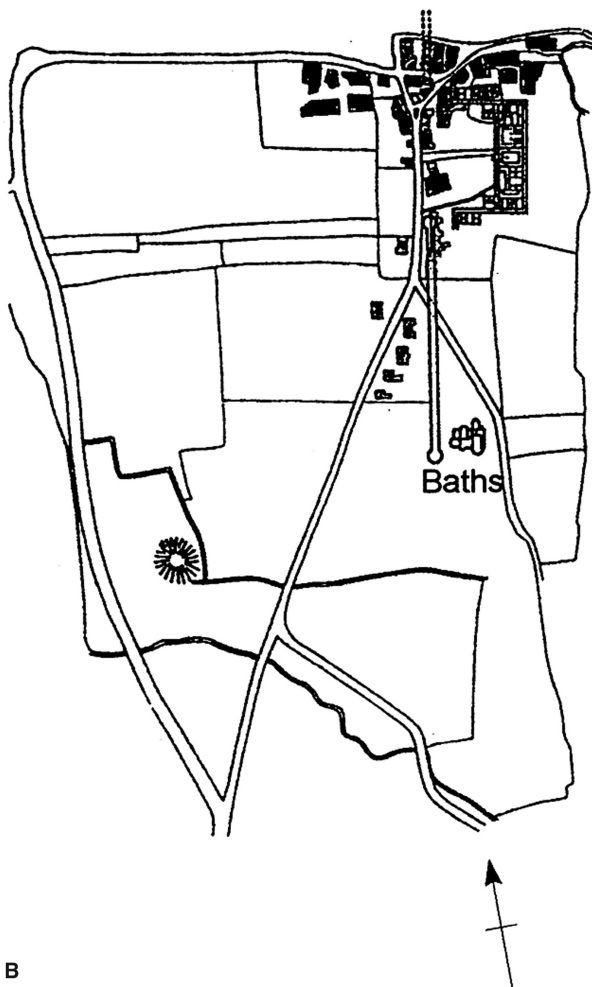


Figure 6.7B Nennig, plan, after Gros 2001, fig. 364.

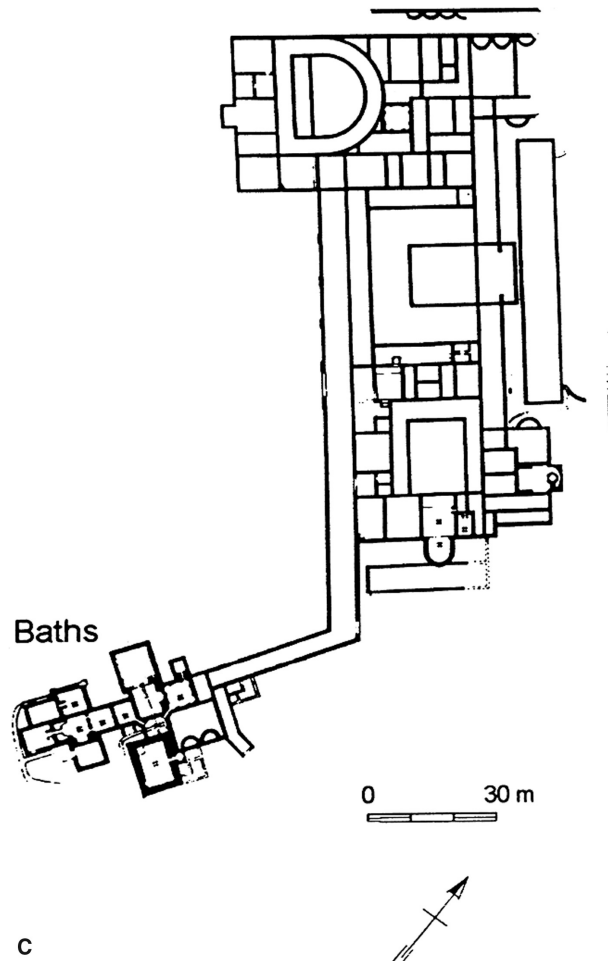


Figure 6.7C Haccourt, plans, after De Boe 1971, fig. 10.

direct coastal or river view, adds strength to this suggestion that the natural, or more precisely the cultivated landscape, was a key factor in the overall ambiance; a similar focus can be seen at the villa of Haccourt (Liège, Belgium; Figure 6.7C), where the baths, set at a distance from the main residential block, would have had a distant view to the Meuse, an intermediate one of the intervening farmland, and a closer observation of the gardens of the villa.⁷⁶ Indeed, one could argue in cases like this that the baths were as much a feature of the gardens as the gardens were of the baths.⁷⁷ This may have been the case at Hadrian's Villa at Tivoli, where the vast windows of the heated rooms of both the Large and Small Baths have low sills and look out onto what are now open areas, but most likely included some kind of formal garden element, for which they formed an imposing backdrop.⁷⁸ In this they mirror the situation in the Imperial *thermae*, where only in the heated rooms would it have been possible to look out onto the garden precinct, the other window sills being too high, while at the same time, at least in the Baths of Caracalla, this façade in turn was decorated with glass mosaic forming a theatrical backdrop to the gardens themselves.⁷⁹

The importance of the location of baths within garden areas or broader landscape settings of luxury villas takes us back to the *thermae* of Agrippa, built as an adjunct to his suburban *horti*. These baths, I have argued elsewhere, lie at the start of a reversal in terms of size, design, and degree of luxury, which affected public baths throughout the empire during the later first and second centuries AD, a change already noted by Seneca.⁸⁰ Even where public baths could not or did not incorporate real planting

into their facilities, the two interlinked models of luxury villa and Imperial *thermae* remained the ideal, evoked not just by the use of marble or the emphasis on light but particularly by fountains and garden elements in their decoration.

GARDENS IN *PALAESTRAE*

While actual gardens thus appear to be missing from most baths except for the Imperial *thermae*, independent *palaestrae*, direct descendants of the original Greek gymnasium, continued to exist in the Roman world and provide the best evidence for planted spaces creating a different ambiance to that of the baths.

The discussion so far has considered only *palaestrae* which are relatively small in proportion to the bathing areas proper, and which have generally been shown not to have contained plantings. There were also, however, *palaestrae* with no bathing wing, or baths in which the *palaestrae* are so large in relation to the bathing block for the latter to be able to be considered as mere adjuncts to the *palaestrae*. In the eastern Empire such establishments are *gymnasia*,⁸¹ which clearly influenced the garden elements of the Imperial *thermae*. In the western Empire and North Africa, however, a rather different strand can be identified in the *campi*, areas for exercise and quasi-military training especially associated with *iuvenes* (young men). While in many respects they fulfilled many of the physical training functions of the Greek *gymnasion*, and show many of the same kind of features, their origin would appear to lie as much in the influence of the original *campus*, the Campus Martius at Rome with its long associations

with military training.⁸² The two are of course not mutually exclusive, and the possible influence of the early Greek *gymnasion* on the Campus Martius cannot now be clearly recovered but would not be unexpected.

Devijver and van Wonterghem's detailed study of the epigraphic and archaeological evidence identified a number of features common to these *campi*.⁸³ A level open space enclosed by a wall was essential, frequently associated with a surrounding portico, often with a large swimming basin and latrine, and sometimes with extra structures such as *exedrae*, *scholae*, and baths. Most but not all the *campi* are outside city walls,⁸⁴ and often close to an amphitheater. The best known and one of the largest is the Augustan Palestra Grande at Pompeii (Figure 6.8A), a walled enclosure of about 15,000 square meters with swimming pool and porticoes on three sides, located inside the walls near the amphitheater.⁸⁵ Here there were certainly large trees, two rows of what were probably planes mirroring the portico on three sides, spaced to allow a shady running track between them.⁸⁶ There were also large shade trees immediately outside the walls of the *campus*, shading the whole area.⁸⁷ The remains of trunks of trees found in the excavations of the considerably smaller (ca. 5,000 m²) but contemporary *palaestra* of Herculaneum, which also has a large swimming pool along its north side (the central one with its fountain being presumably more for display), may lend support to the identification of a *campus*, but this is debated.⁸⁸ Other structures identified as *campi* range in size from the 7,500-square meter one at Ampurias in Spain (Figure 6.8B) to the 37,800-square meter giant at Corfinium

in central Italy,⁸⁹ all of which could have been planted with shade trees. Even though few of these examples have pools, the epigraphic evidence shows that *piscinae* were common adjuncts of *campi*, and as we have seen with baths, these might have been a special focus of planting or garden-related decoration, although the evidence is slight.

The arguments concerning gardens in baths and *palaestrae* or *campi* come full circle if we look at the very large *palaestrae* of some bath buildings. Indeed it may be

Figures 6.8A–B *Campi* in the western provinces associated with amphitheaters:

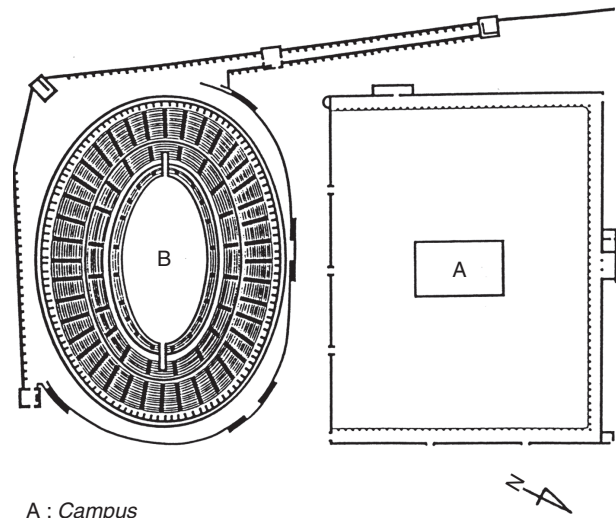


Figure 6.8A Pompeii, Palestra Grande, plan, after Bouet 1998, fig. 7b.

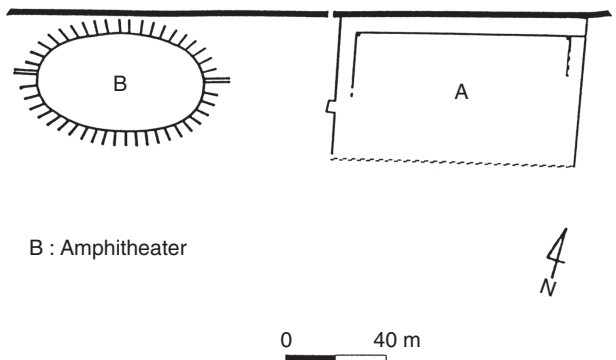


Figure 6.8B Ampurias, plan, after Bouet 1998, fig. 7c.

no coincidence that the Baths of Caracalla were built in Regio XII, Piscina Publica,⁹⁰ and the Baths of Diocletian were built on the edge of the Campus Praetorianus.

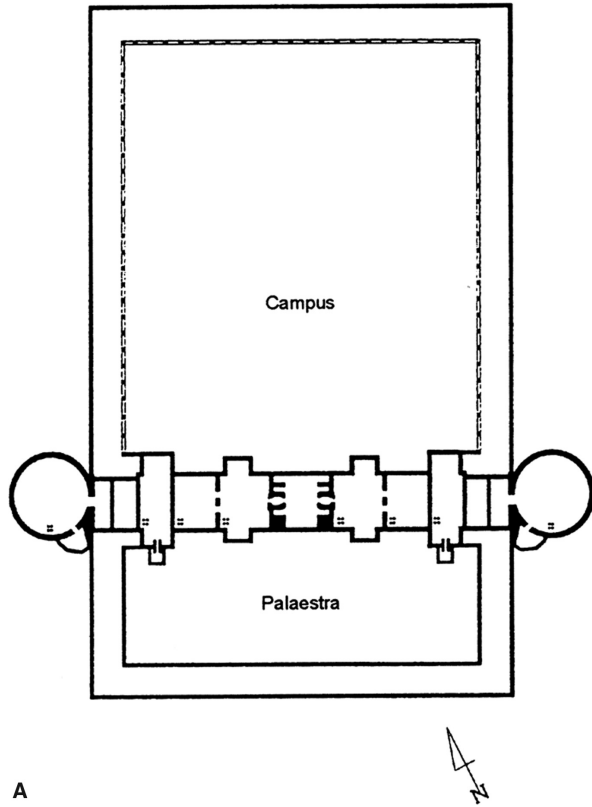
Bouet argues that such large baths and *palaestrae* should also be interpreted as *campi*, particularly where there is also a separate smaller paved or sanded area for general exercise; in his example of the baths at Vieil-Evreux (Figure 6.9A), the *campus* area measures about 5,300 square meters, roughly the same size as the *palaestra* of Herculaneum.⁹¹ Although *campi* are not attested in the epigraphic evidence for the northwestern frontier provinces, I would suggest that in many of the large baths of these areas, where a covered basilical hall often replaces the paved *palaestra*,⁹² the outdoor *palaestrae* might be the equivalent of *campi*. That of the legionary fortress baths at Caerleon (Figure 6.9B) was only slightly smaller (ca. 4,100 m²) than the *palaestra* at Herculaneum and also contained a large swimming pool, with a *nymphaeum* decorated with garden paintings and a dolphin fountain; it could thus have played a part in maintaining the physical fitness of the occupants, while also not being out of place in a bath building.⁹³ In the small part excavated, there was a sanded floor over a cobbled base set into the natural clay, but this does not necessarily preclude the planting of trees for shade. Even in the much smaller examples identified by Bouet (Figure 6.9C), for which the identification as *campi* is hard to defend,⁹⁴ the distinction between a smaller paved and porticoed area, where we would not necessarily expect to find any planting, and a larger and unpaved area, suggests that the latter may indeed have been fitted with shade trees. One intriguing possibility is the highly unusual circular *palaestra* of

the Baths at Gigithis (ca. 2,200 m²), whose form Torelli has argued was influenced by Sparta's famous gymnasium, an island called Platanistas from the circuit of tall plane trees around it (Figure 6.9D).⁹⁵

The concept of the tree-shaded *campus*, which owes its origins to the Campus Martius in Rome but was reinforced by the idea of the *original* Greek gymnasium (rather than the developed Hellenistic form of it), thus appears in turn to have influenced the design of some bath buildings, particularly of the mid first to early second centuries AD. This is, of course, also the period in which the earliest of Rome's *thermae*, the Baths of Agrippa and the Baths of Nero with their setting in the Campus Martius, were developed, and it is no longer possible – if it ever were – to disentangle the intersecting lines of influence over smaller provincial baths.

CONCLUSIONS

What the coming together of these various strands suggests is that the most likely and widespread form and place for actual planting in baths and *palaestrae* – at least in the western Empire – are of shade trees in either free-standing enclosures or areas peripheral to the baths proper, often in association with a cold water pool for swimming. In these cases, the planting enhanced the mood and associations – however nostalgically – of the environment: a place for hard physical exercise as a quasi-military training for the youths of the citizen body in readiness for war. In the eastern Empire, its equivalent was the gymnasium, which originally fulfilled a similar role in physical training, and carried this association into the



Figures 6.9A–D Baths with associated *campi*:

Figure 6.9A Vieil-Evreux, plan, after Bouet 1999, fig. 7a.

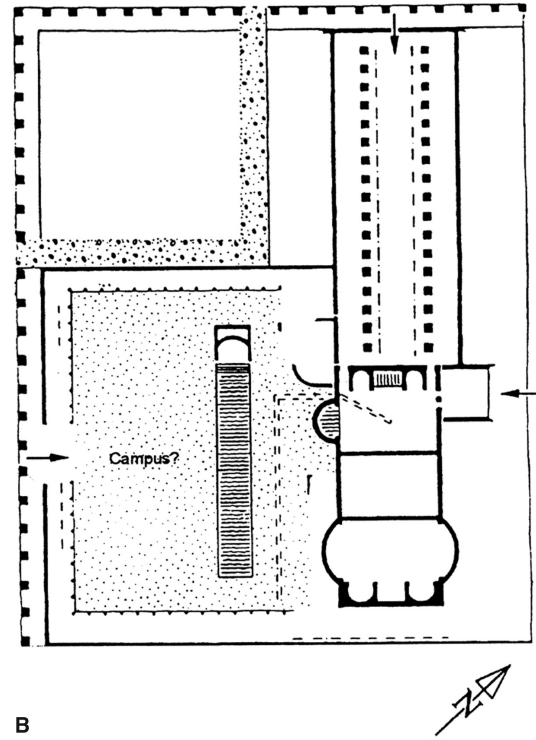


Figure 6.9B Caerleon, Legionary Baths, plan, after Zienkiewicz 1986, fig. 3.

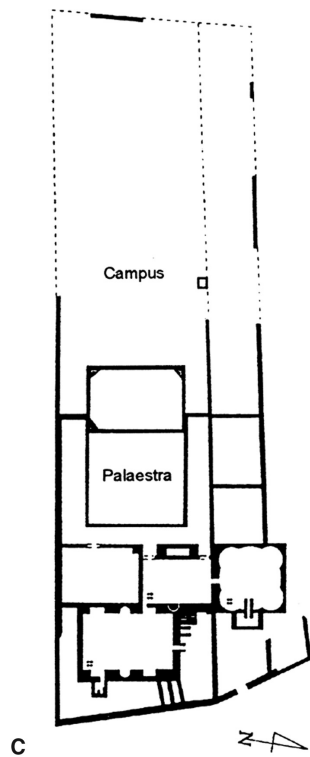


Figure 6.9C Saint-Michel-du-Touch, plan, after Bouet 1999, fig. 7b.

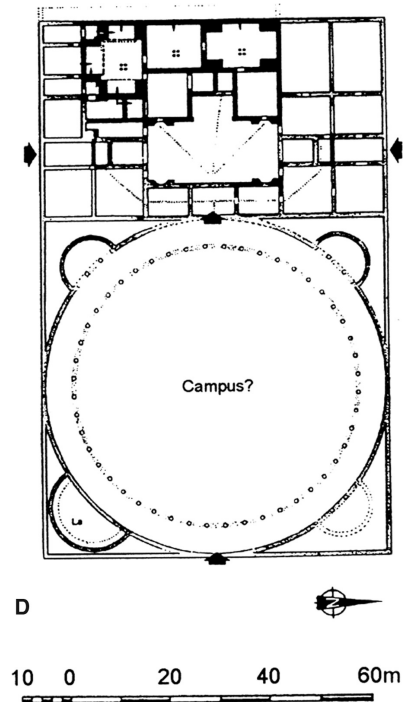


Figure 6.9D Gigithis, plan, after Nielsen 1990, fig. 180.

Empire. Both semi-military *campus* and Greek *gymnasion* contributed to the inclusion of such areas in the great *thermae* of Imperial Rome, and these are also the main types of baths where more formal planted gardens existed, through the influence of the Roman luxury villa.

Elsewhere gardens appear to have been something of a rarity. Where they existed, these might be expected to have followed closely the pattern of villa gardens than necessarily evolving their own language, but the evidence is very limited. Garden themes in decoration, often applied to urban baths which had no proper garden spaces to boast of, provide a different and far stronger kind of evidence for the

influence of gardens on baths, through the conceptual world of real or mythologized nature shared by both. In most cases where evidence does exist, there seems to be a close link between garden elements – real, painted, or suggested by other decoration – and water features, especially pools. The same applies to baths with views over natural settings, particularly those identified in coastal or riverside villas. The atmosphere aroused by this kind of garden speaks more of the reverse of Roman life and sentiment: of a desire for both the unachievable luxury of the elite villa and the idealized nature of the mythological past, where one might stumble unexpectedly on a goddess bathing.

Chapter 7

GARDENS IN GYMNASIA, SCHOOLS, AND SCHOLAE

Maureen Carroll

THE HISTORICAL DEVELOPMENT, context, and physical appearance of Roman educational institutions cannot be adequately understood without an examination of the history and archaeology of the *gymnasia* and schools in Greece, particularly those in Athens. This caveat has to do with the fact that Romans embraced and adopted, at least in part, the principles, ideals, and content of Greek education. The centers of learning in Greece retained their position of primacy in the Mediterranean world throughout the Roman period. It is also to Greece and the eastern Mediterranean, rather than Italy, that we must look for physical evidence of schools and their surroundings, for it was not until the middle of the third century AD that a philosophical school was established under Plotinus in Rome, though we know nothing about its location or appearance. The Greek schools thrived long after the Roman conquest, although most of them, at least in Athens, were much older in date and had been in operation since the fourth century BC. These were intimately associated with groves and gardens. From the third century BC, new centers of learning were established in Hellenistic Egypt and the eastern Mediterranean, many of them rivaling Athens in some respects. The schools of Athens continued, nevertheless, to hold a particular attraction for the Roman intellectual elite well into the sixth century AD.¹

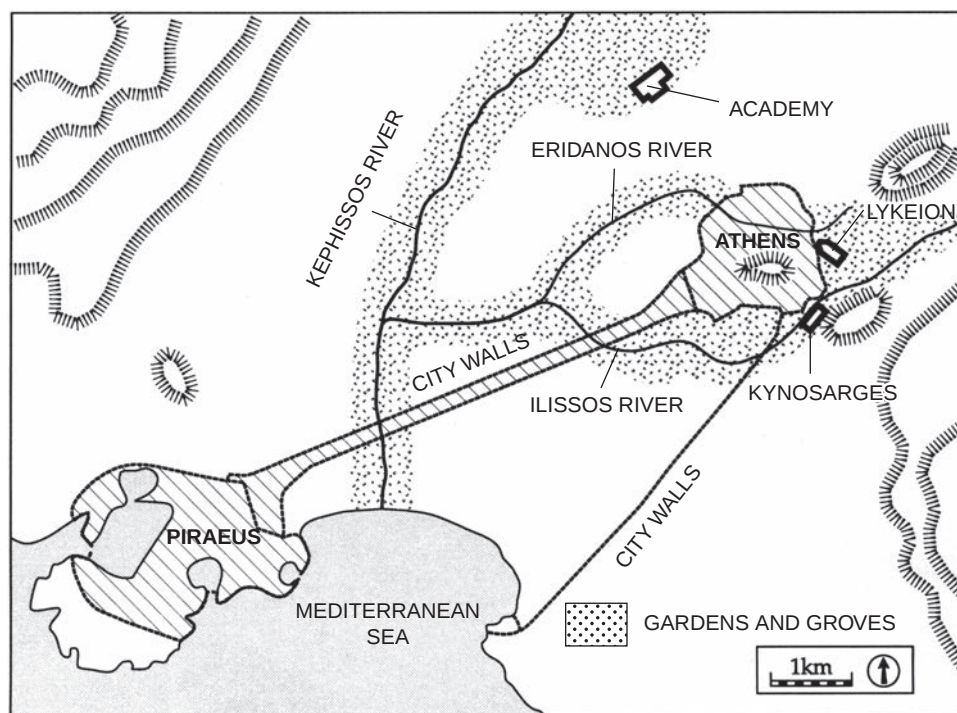
GREEK GYMNASIA

Let us begin by exploring the *gymnasia*. The most famous of the Greek *gymnasia* were outside Athens beyond the Themistoklean walls of the fifth century BC.² The *gymnasia* in the Athenian suburbs, Academy, Lykeion, and Kynosarges, were situated in well-watered areas along the Kephissos, Eridanos, and Ilissos rivers (Figure 7.1). Not until the middle of the third century AD was the former suburb of Lykeion enclosed within an extension of the city walls, the so-called Valerian Wall. The other two districts of Academy and Kynosarges always remained outside the city's defenses. All three *gymnasia* in these locations were established in the midst of ancient sacred groves and cult sites. The plane, elm, poplar, and olive trees in the Academy, in particular, were praised in the ancient sources.³ The

Athenian statesman Kimon was said to have planted trees in the Academy district and equipped it with running tracks and shady walks in the 470s BC.⁴ A later Athenian orator and statesman, Lycurgus, planted trees and built a *palaestra*, or sports ground, in the Lykeion district in the second half of the fourth century BC.⁵ The combined elements of the old-style, classical Greek education were physical training, musical education, and writing.⁶ All these elements, but especially athletics, were subjects of study in the gymnasium. The *gymnasia* included running tracks and other sports grounds for athletic training, baths for cleansing and recuperation, and rooms for literary instruction, all of them spread out over large areas and loosely added to in the course of time.⁷

Many new *gymnasia* were built in the cities of the Hellenistic world, but they were a fixture of the urban, rather than the suburban, landscape.⁸ This meant that

Figure 7.1 Athens including Piraeus and environs with groves, gardens, and *gymnasia*, plan.



gymnasia were slotted into a more limited space where extensive groves and gardens were not really possible or to be expected. The Hellenistic *gymnasia* were inward-looking structures, characteristically containing an open exercise courtyard, massage and training rooms, a bath, and a lecture room or *exedra*. In the fourth century BC, these *gymnasia* originally were institutions in which the ephebes, the young men in training for compulsory military service, received their physical training and were taught the principles of democracy. The gymnasium in the centuries thereafter became a center in which young aristocratic Greeks, and even Romans, were initiated into sport and basic education. It became, as Marrou puts it, "something of a snob school."⁹

King Ptolemy VI Philometor (181–145 BC), in an act of royal patronage, donated a gymnasium, the Ptolemaion, to the Athenians, and according to the literary sources it was in the center of the city, "not far from the Agora."¹⁰ Identifying this gymnasium in the archaeological remains of the Agora has proven difficult. The complex consisting of the south stoa and the east building has been suggested, and then rejected, as the Ptolemaion; it is now thought to have stood east of the Roman agora.¹¹ Although this urban gymnasium was a new and attractive educational center, the old suburban *gymnasia* of Athens continued to be frequented and actually enlarged in the Hellenistic and Roman periods. Excavations in the Academy have shown that a new gymnasium was built there in the late Hellenistic period (second century BC) and repaired in the Roman period.¹² This gymnasium consisted of a porticoed central courtyard that may have been used as a *palaestra* for training.

Recently, Hoepfner rejected the interpretation of the building as a gymnasium, and suggested instead that it represents the *mouseion* and *exedra*, in other words, the school of Plato; this, however, would have been a Hellenistic school building, not a structure contemporaneous with Plato.¹³ According to Pausanias, Hadrian had a gymnasium named after him outside the walls of Athens near the Ilissos River in Kynosarges.¹⁴ It is uncertain whether he merely refurbished the old one or had a new gymnasium built there in the second century AD. This emperor is generally credited by Pausanias as a great benefactor of Athens, and the one under whom Athens, once "badly hurt by the war with Rome" at the time of Sulla, flourished again.¹⁵ Remains of a large Roman building and an inscription containing a letter of Hadrian concerning a gymnasium found on the site may confirm that the emperor actually donated a new building.¹⁶ Roman baths built in the Lykeion area and an inscription of the first century BC mentioning the Lykeion gymnasium confirm continued activity in this district.¹⁷

ROMAN GYMNASIA AND PALAESTRAE

For the Romans, the gymnasium represented a Greek cultural tradition, and it is perhaps not surprising that the emperor Nero, who prided himself on being well-versed in Greek music, poetry, and athletics, and who even "competed" in the Panhellenic games at Olympia, had a gymnasium and associated baths built in Rome in AD 60.¹⁸ At the same time, Nero inaugurated the Neronia, a festival of competitions in music, gymnastics,

and horse-racing “modeled on the Greek ones,” held every five years.¹⁹ Excavations of Nero’s gymnasium have shown that it included two colonnaded *palaestrae*, each with its own *exedra*, a swimming pool, and baths.²⁰ This must have been a somewhat exotic building in Rome, for Vitruvius says that “the building of *palaestrae* is not usual in Italy,” but “they are constructed among the Greeks.”²¹ The *palaestra*, of course, was present in Roman bath complexes, but it was a rather modest affair and subordinate to the baths themselves, as can be seen clearly, for example, at the Stabian Baths in Pompeii.²² Vitruvius also recommended the inclusion of covered and uncovered running tracks adjacent to the *palaestra*, as well as a grove of plane trees. The urban location of Nero’s gymnasium meant that there was no room for a grove, but when Alexander Severus in AD 227 added substantially to the baths and had an aqueduct built to supply them with water, he had older buildings demolished in order to create a park or *nemus*.²³ We know of two other *gymnasia* built in Rome under Trajan, one paid for by Licinius Sura and one designed by the Imperial architect Apollodorus.²⁴

Whether any of the excavated buildings in Hellenistic and Roman Pompeii actually functioned as a gymnasium or *palaestra* is an issue that has seen much debate. Three buildings have been given that name: the so-called Samnite *palaestra* north of the theater; the large peristyle south of the theater (later used as gladiator barracks); and the Augustan *palaestra* (Great Palaestra) west of the amphitheater.²⁵ Whether or not these structures were used as *gymnasia*, only one, the Augustan *palaestra*, has been shown to have had plantings of trees. For

Zanker, this *palaestra* was, without doubt, an athletic field used by the young men of the town for basic military arts and for physical fitness training.²⁶ As Richardson pointed out, however, there are no *exedrae*, baths, or training rooms in or attached to the porticoes enclosing the large open courtyard.²⁷ In fact, there are no rooms at all but rather only a portico around an open square. His suggestion that the building was a public park – the porticoes providing visitors protection from the rain and the double rows of plane trees on three sides of the courtyard providing shade – is a reasonable one (Figure 7.2). These trees were almost one hundred years old when Pompeii was destroyed by the eruption of Vesuvius.²⁸

GARDENS AND SCHOOLS

We can now turn to the evidence for gardens associated with schools. Despite the dual emphasis on physical training and intellectual pursuits in traditional Greek education, by the late fifth century BC the intellectual and literary element began in some circles to gain ground over physical training, leading some critics to refer to the schools of the time as “thinking shops.”²⁹ As part of this development in education, several philosophers in the fourth century BC established schools for advanced study in close proximity to the suburban Athenian *gymnasia*, an ideal location for a teacher wanting to attract students. Plato opened his school in 387 BC in Kolonos near the Academy; Aristotle set up his in Lykeion in 335 BC; and Epicurus established himself as a teacher in an urban house (Melite) and in a suburban

Figure 7.2 The “Great Palaestra,” Pompeii, replanted plane trees in the courtyard.



garden outside the Dipylon Gate on the road to Academy in 306 BC.³⁰ Classes usually were held in both the gymnasium and in the nearby schools. These schools were, in fact, private houses used by the founding school directors and the community of students attending them. All of them had gardens, as the written sources tell us. Theophrastos, Aristotle's successor in 323 BC, had a garden with houses, promenades, a temple, and a shrine to the Muses (*mouseion*), and it was also the site of his own tomb.³¹ In the eyes of the law, these schools were religious foundations.³² Plato before him had erected a *mouseion* in the Academy.³³ Of all the philosophers, Epicurus was most closely associated with a garden, and his school was commonly referred to as “The Garden.” This school, however, was not attached to a gymnasium; rather it was inhabited by the director and his devoted circle of friends and disciples to promote their “common life in the garden.”³⁴

In the third and second centuries BC, and thereafter for much of the Roman period, the established schools of the philosophers were maintained under a succession of various directors (*diadochoi*). Epicurus, for example, bequeathed his school and garden at his death in 270 BC to Hermarchus of Mytilene, who continued to run the establishment, and who was meant to follow in appointing a successor in due time.³⁵ Lakydes, the director of the Platonic school in the Athenian suburb of Academy in the second half of the third century BC, taught in the Lakydeion, a garden donated by the Pergamene king Attalus, which was almost certainly attached to the original school.³⁶

In what condition these institutions found themselves in the first few centuries AD is not entirely clear. The groves near or around the *gymnasia* and schools had been cut down at least by the time of Sulla in 86 BC.³⁷ Cicero, in 79 BC, recorded a conversation between himself, his brother Quintus, his cousin Lucius, M. Piso,

and his friend Atticus when they met in Athens at the house of Piso and strolled to the Academy from the Dipylon Gate, seeing the garden of Epicurus, which they had just passed.³⁸ Atticus said he stayed in "The Garden" of Epicurus when he studied under the Epicurean philosopher Phaedrus. Mention is also made in this conversation of the garden of Plato in the same suburb. Cicero was reminded of Polemon, the director of Plato's school in the early third century BC, and he remarked on Polemon's lectures delivered in "that very seat we see over there." Years later, in 51 BC, Cicero attempted to intervene when Epicurus' house, apparently in ruins, was about to be developed for new building projects against the wishes of the Epicurean community.³⁹ The poet Horace saw the groves of the Academy during his student days in Athens.⁴⁰ Strabo, in the early first century AD, referred in general terms to the gardens of the philosophers in Athens, without commenting on their condition.⁴¹

Heliodoros, writing in the third century AD, mentioned a gathering of men near the garden of Epicurus, but, given that the school was ruinous by 51 BC, this may be artistic embellishment.⁴² On the other hand, it has been suggested that Hadrian might have been responsible for a rebuilding of the Epicurean school.⁴³ Plotina, Trajan's wife and Hadrian's adopted mother, was very sympathetic toward Epicureanism, and she appealed to Hadrian in AD 121 to intervene in the regulations of the Epicurean school.⁴⁴ Roman statues of Epicurus, the Epicurean philosopher Colotes, and other unidentified philosophers were found in 1963 and 1968 outside the Dipylon gate on the road to the Academy where they had been reused

and built into late Roman walls and buildings.⁴⁵ Originally, they may have been part of a nearby building, perhaps a school – possibly a Roman (Hadrianic?) rebuilding of the school of Epicurus himself.

Alexandria in Egypt was also renowned in the Hellenistic and Roman periods as a leading center of learning. Strabo described the city in the early first century AD, mentioning the royal palaces and the law courts in connection with gardens and groves (Figure 7.3).⁴⁶ The *mouseion*, a center of research and higher education under the divine protection of the Muses, formed part of the palace district, and it may well have been surrounded by the groves associated with the royal residences and monuments.⁴⁷ The *mouseion* and its library attracted artists, writers, scientists, and philosophers of international repute. In creating this institution in the early third century BC, the Hellenistic king Ptolemy I Soter made Alexandria a rival of Athens for the intellectual primacy of the Greek world.⁴⁸ Strabo also mentioned the gymnasium in Alexandria, which he considered to be the most beautiful building in the city. Although he does not explicitly connect the gymnasium with groves, it is likely that they existed in this context. There is, unfortunately, no archaeological evidence for the groves and gardens in Alexandria.

For serious intellectual pursuits a library was a necessary part of any school. The estate of both Theophrastus and Epicurus included a library.⁴⁹ The library of Pantainos, built around AD 100 in Athens, was added to an already existing Roman building in the southeast corner of the Agora.⁵⁰ According to the dedicatory inscription above the lintel of the doorway, the benefactor, Titus Flavius

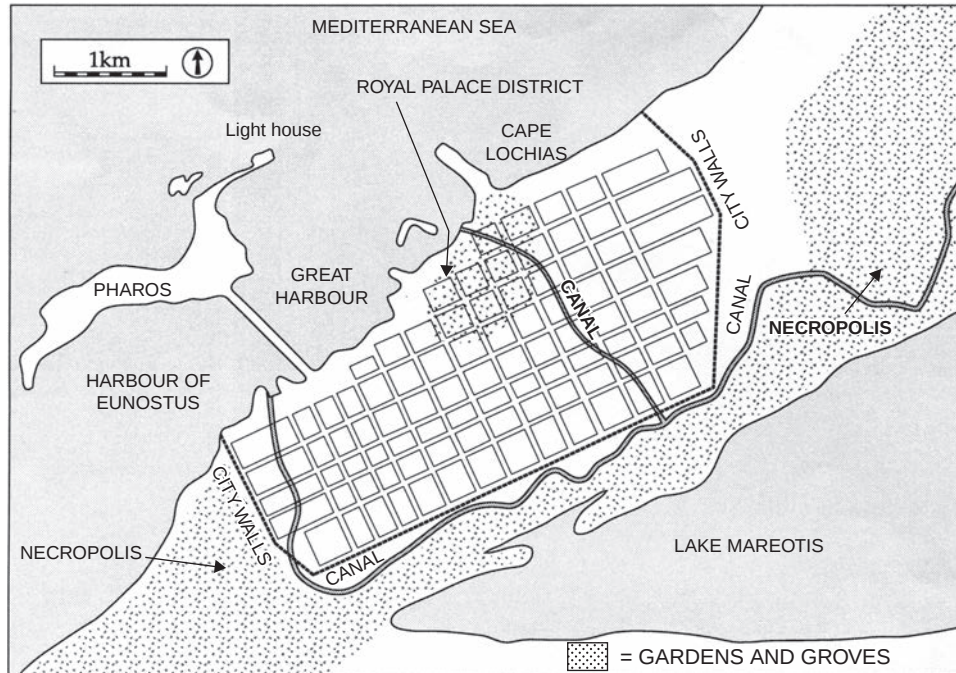


Figure 7.3 Alexandria and the surrounding territory with groves and gardens in the suburbs and palace district, plan.

Pantainos, was the son of a certain Flavius Menander, himself the head of a school. The core of the building predating the library donation and other modifications may well be the school of which Flavius Menander was the head.

Munificence at the highest level was also directed toward the establishment of libraries. Hadrian himself was responsible for the construction of a particularly imposing edifice connected with education and scholarly pursuits in Athens – his library, built east of the old Agora and just north of the Roman agora, which had been completed under Augustus.⁵¹ It may have been built between AD 124 and 132 when Hadrian was present in Athens, bestowing many gifts on the city and its inhabitants.⁵² Pausanias, our literary source for Hadrian's building projects in Athens, referred to the new library as a splendid building with 100 columns of Phrygian marble, gilded roof work, statues, and paintings.⁵³ Pausanias did not mention

any plantings associated with the building, but modern scholars have proposed rows of clipped trees in the center of the courtyard. There is no archaeological evidence to confirm the existence of these plantings; however, there are earlier parallels from the first century BC and the first century AD in Rome for public buildings with formal gardens in a porticoed courtyard. The Porticus of Pompey and the Templum Pacis of Vespasian in Rome, for example, had rows of plantings as a central element in the courtyard, and the arrangement of trees and planting beds is preserved in the *Forma Urbis Romae*, the marble plan of Rome dating to the reign of Septimius Severus.⁵⁴ Furthermore, the Templum Pacis, as well as Trajan's forum in Rome, included Greek and Latin libraries. Perhaps these provided some inspiration for the library in Athens. At any rate, the architectural design and the integral provision of plantings had a long tradition in Rome, and it was a design that could

easily be “exported” to Athens as an act of Imperial patronage. However, Hadrian’s library was also rooted in the later Greek tradition of *gymnasia*, which no longer had attached sports grounds. Willer’s suggestion that we should interpret the building as a *mouseion* is an attractive one.⁵⁵ Imperial patronage in the educational sector continued under Hadrian’s successor, Marcus Aurelius, who established new academic positions and gave salaries to teachers in various disciplines in Athens.⁵⁶

The Athenian *gymnasia* and schools were held in especially high esteem by members of the wealthy, educated class of Roman society, who eagerly absorbed Greek intellectual culture and often completed their higher education in Athens. Roman poets, statesmen, and aristocrats such as Cicero, Horace, and Lucullus, to name just a few, attended them. The choice of statuary decoration in many Roman villa gardens, as well as the dialogues and letters of Roman scholars, clearly indicate that many Roman pleasure gardens were designed to evoke the gardens in Greek sanctuaries, *gymnasia*, and the schools of Athenian philosophers of the Classical period.⁵⁷

References to the Academy and the gardens of Athenian philosophers are frequent in Roman literature, and Roman tourists might even visit these when conducting their grand tour of Greece, finding that, wherever they went, they “tread on historic ground.”⁵⁸ According to Varro, it became *de rigueur* for the Roman owners of country estates to have parts of their villas with Greek names; these included a *palaestra* and a gymnasium.⁵⁹ Cicero named his first-century villa near Tusculum his “Academy,” and furnished it with statues, herms, and other Greek

works of art – including a statue of Plato – which he considered appropriate for a gymnasium.⁶⁰ The wealthy, educated, and cultivated Roman discussed philosophy, literature, and art with his equally cultivated friends, and such discussions frequently took place in their villa gardens.⁶¹

Hadrian built a vast Imperial residence with parks and gardens between AD 118 and 134, choosing the countryside near Tivoli as the location for his estate. This estate consisted of a chain of parks with pools, canals, fountains, and a wealth of statuary imitating collections of famous Greek works of art. Hadrian was a great admirer of Greek culture; he was well versed in Greek philosophy and had visited and acted as a benefactor in Athens in AD 124/125, 128, and 131/132. His special interest in Greek philosophy and Athens is reflected in the inclusion on his estate of parks or groves named “Academy” and “Lykeion” after the famous Athenian *gymnasia*.⁶² The gymnasium, the *mouseion*, and the palace galleries in Alexandria also appear to have been a source of inspiration for many Roman villa gardens. Just as he had spent much time in Athens, Hadrian toured Egypt in AD 130/131, visiting a number of sites, including Alexandria, where he conducted debates in the *mouseion*. One of Alexandria’s landmarks was the navigable canal, which flowed from the Canopic arm of the Nile into the city, and probably through at least some of the precincts containing groves.⁶³ At his villa in Tivoli, Hadrian had a long pool (so-called “Canopus”) constructed with an elaborate dining area, or *stibadium*, at one end (Figure 7.4).⁶⁴ Archaeological excavations on both banks of Hadrian’s Canopus have recovered evidence for plantings of trees or bushes.⁶⁵ Although Hadrian’s



Figure 7.4 The so-called Canopus at Hadrian's Villa, Tivoli.

biographer used the name “Canopus” to identify this part of the villa, the canal and its garden landscaping cannot be interpreted as a direct topographic quote of the *mouseion*, gymnasium, or any other particular structure in Alexandria; rather, it was simply meant to evoke a landscape and a cultural environment known to and understood by educated and status-conscious Romans.⁶⁶

Many years after the sacking of Athens by the Herulians in AD 267, new schools were established there that revived the teaching of Platonic philosophy, generally referred to as Neoplatonism. The first head of the Neoplatonic School in Athens in the years between 375 and 400 was Plutarch. While this philosophy was still called “the Academy,” the schools were no longer located in the suburb of Academy or on the premises of Plato's original school. Contemporary descriptions of these late Roman schools reveal that they were private houses, with rooms for lectures and libraries.⁶⁷ Several large

houses with peristyle courtyards, built adjacent to the Agora on the northeast slope of the Areopagus in the second half of the fourth century AD, have been interpreted as such schools (Figure 7.5).⁶⁸ They were located very close to the center of the city, rather than in the old leafy suburbs of pre-Roman date. These houses were, nevertheless, outside the post-Herulian Wall, which, in comparison to the earlier circuit walls, enclosed a much smaller area just north of the Acropolis up to, and including, the Roman agora. Perhaps, for reasons of security, the outlying suburbs of Academy and Kynosarges, and Lykeion within the now abandoned Valerian Walls, were generally considered a rather vulnerable location and one that was potentially dangerous, given the attacks of the later third century on the city. But there may have been more significant practical and ideological reasons for the shift in location of *gymnasia* and schools. By the fourth century AD education had long ceased to include athletic training,

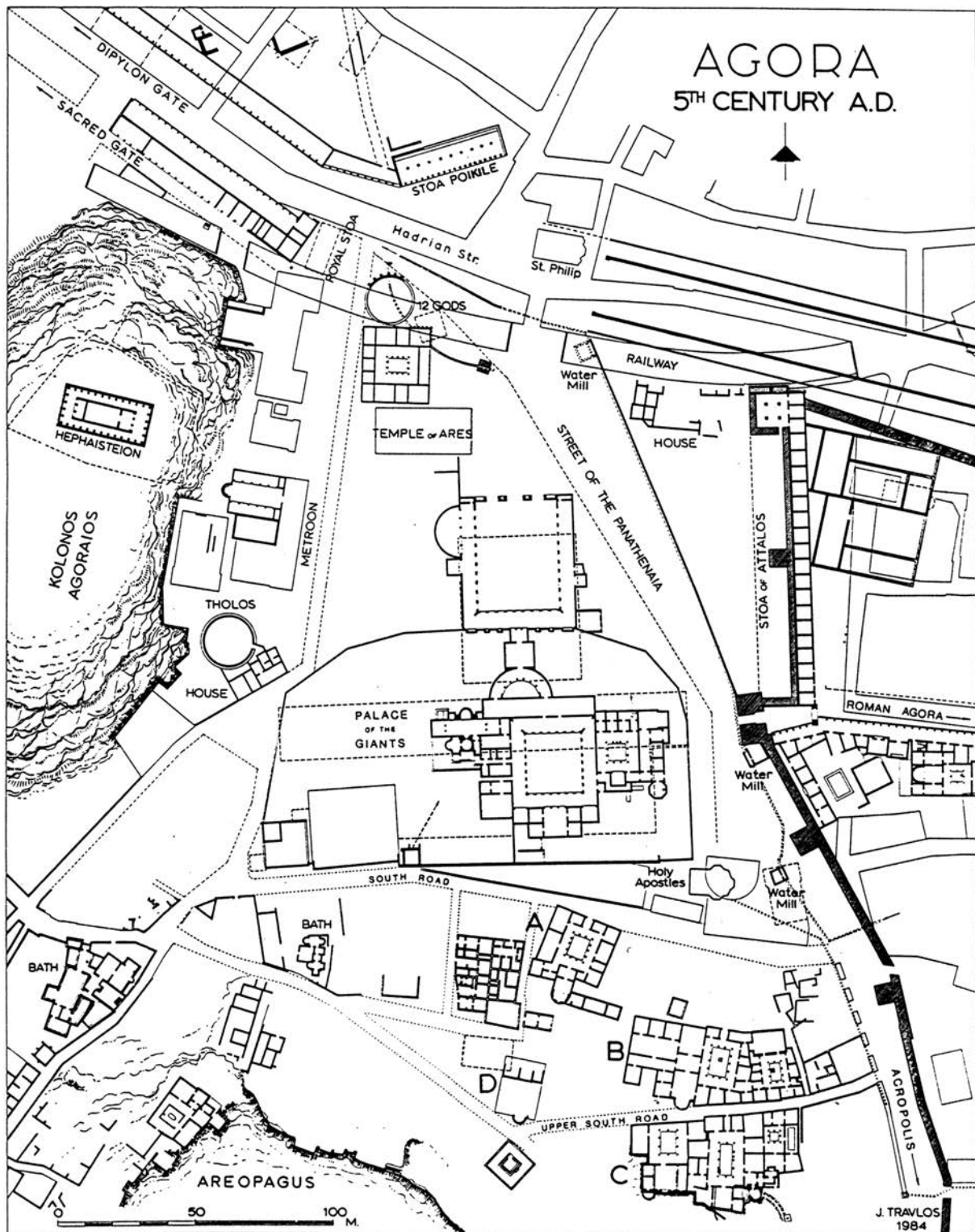


Figure 7.5 The Agora, Athens, schools of philosophy just outside the Agora to the south (A–D), and the so-called “Palace of the Giants,” southern end of the square, late Roman period, plan.

and instead centered only on rhetorical exercises and philosophical enquiry. The need for shady and well-watered sports grounds, which were so common in the classical *gymnasia* and which attracted the schools of the earlier philosophers, may no longer have existed. In keeping with the more central and urban location of the late Roman schools in Athens, and in the style of Classical and Hellenistic Greek houses, gardens are scarcely evident in any of these buildings. Only one of them, the so-called House C or Omega House, may have had a garden in an unpaved peristyle courtyard.⁶⁹

Athens was again exposed to attack in AD 395, this time by Alaric and his Visigothic army. Following the destruction and damage inflicted on the city by Alaric there was a certain amount of redevelopment on the south side of the Agora, which lay outside

the post-Herulian city walls. This included the construction in the early fifth century AD of a large complex within its own enclosure walls, and possibly with a garden, built on the site of the earlier Odeon of Agrippa (Figure 7.6). Interpretations of the function of this building range from a gymnasium ("Gymnasium of the Giants") to an official residence or villa ("Palace of the Giants").⁷⁰ In view of the limited space for exercise, Camp suggested that it was more likely to have been a school or university complex than a gymnasium.⁷¹ If this were so, the lack of space for exercise would not be at all surprising, since the late Roman schools nearby were not located in extensive grounds with groves and sporting facilities. The statues of Epicurus and other philosophers in the northern courtyard could be interpreted as a deliberate thematic reference to the schools and

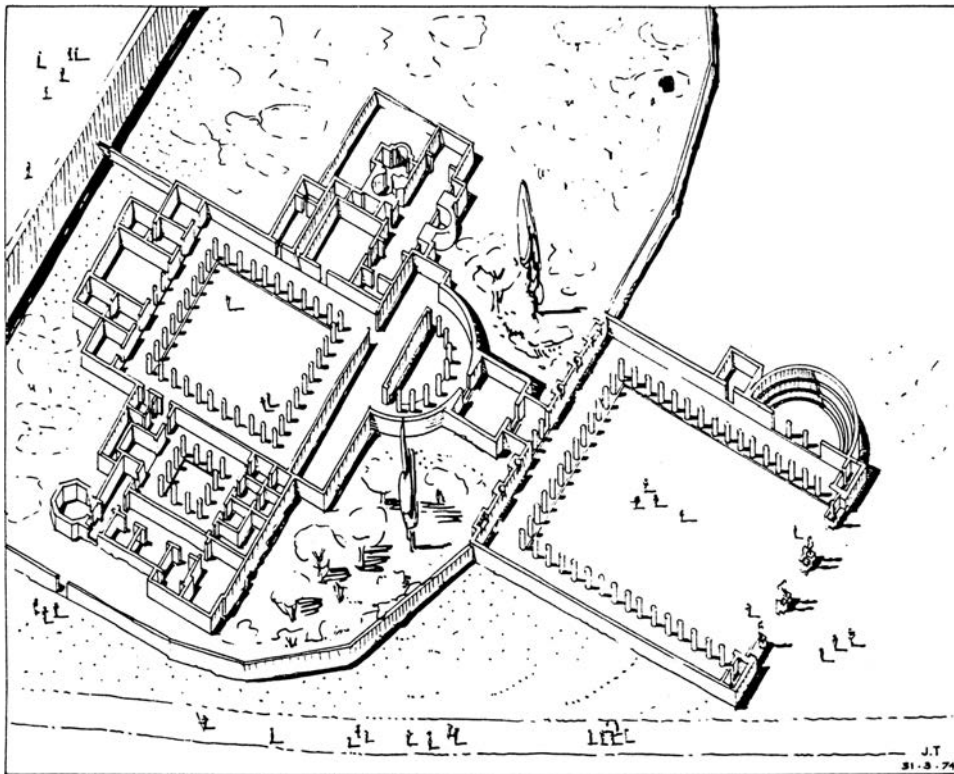


Figure 7.6 The "Palace of the Giants" and possible garden, Athens, early fifth century AD.

gardens of the Classical philosophers, an appropriate reference if the building were a school. These statues, however, were not commissioned for the building, but were retrieved from the ruins of the Odeon of Agrippa, destroyed in the Herulian invasion. In the end, three important aspects speak against the complex as a private house or school. Firstly, the sheer size of the building and its grounds (13,500 m²) makes it unusual compared with any other Late Roman schools. Secondly, the grand northern courtyard would have served ceremonial needs far greater than those required for a private house. And thirdly, the colossal figures of Tritons and Giants, reused from the earlier Odeon of Agrippa, would not be consistent with the adornment of any contemporary private structures. In view of these elements, Thompson's interpretation of the complex as an official residence of Imperial status, with facilities for temporary visitors, is convincing. It is possible that a garden might have been present in one of the

inner unpaved courtyards. Equally, there may have been a garden or grove in the area between the building and the enclosure wall of the complex, although no traces of plantings have survived.

The gymnasium as the institution *par excellence* for Classical Greek education retained its appeal for educated and cultivated Romans of the Republican and Imperial periods. Foremost among the pre-Roman educational centers were the *gymnasia* of Athens, all of them located in the leafy suburbs of the city. With the establishment of the schools of philosophers aimed at higher education in the same suburbs, both the schools and the *gymnasia* became intimately associated with groves and gardens. A particular, and often romantic, reverence for these institutions finds expression in many of the Roman literary sources. A resurgence of these *gymnasia* and schools and renewed building activity in the traditional suburban locations are apparent under Hadrian, but it is uncertain whether any of them

Figure 7.7 Planted peristyle courtyard with water basin, *Schola* of the Collegium Juventutis, Aquincum, third century AD.





Figure 7.8 Garden with long pool, Schola of Trajan, Ostia, second half of the second century AD.

survived into the third century AD. The general shift in location of *gymnasia* and schools from suburban to urban locations in the Hellenistic and Roman periods saw a sharp decline in the association of such buildings with groves and gardens.

Ultimately, however, the Greek idea of a garden in the context of institutional learning did survive outside the Greek university towns of Athens and Alexandria. Buildings have been found in various parts of the Roman Empire that are interpreted as *scholae*: a *schola* generally meaning a school or a place for debate and discussion. These *scholae* are often arranged around a central, planted courtyard. A courtyard building with a garden at Aquincum on the Danube (Figure 7.7), for example, is thought to have been a *schola* and the meeting place of young Roman men who belonged to a *collegium iuventutis*, or a club of youths.⁷² Other *scholae* with gardens appear to have served as clubhouses for various associations. These include the *schola* of the



Figure 7.9 Planted peristyle courtyard, Italica, building identified as the clubhouse of a *collegium*.

collegium fabrum for the society of craftsmen in Tarragona, the so-called *schola* of Trajan at Ostia where the guild of the *fabri navales* (ship-builders) possibly met (Figure 7.8), and those on the island of Delos that possibly were clubhouses for Italian merchants or traders.⁷³ Another large building with a planted peristyle courtyard at Italica in Spain has been identified as the clubhouse of a *collegium*, but it is unknown which society met here (Figure 7.9).⁷⁴ It is likely that the gardens

in the *scholae* used specifically by guilds and professional associations were simply pleasant places for meetings and debate, perhaps not of a particularly scholarly nature. Nevertheless, the schools that we have seen in Roman Athens located in an urban environment and resembling private residences with a courtyard and rooms for gatherings may have been one of the ideological sources of inspiration for *scholae* of various types established around the Roman Empire.

Chapter 8

ROMAN TOMB GARDENS

John Bodel

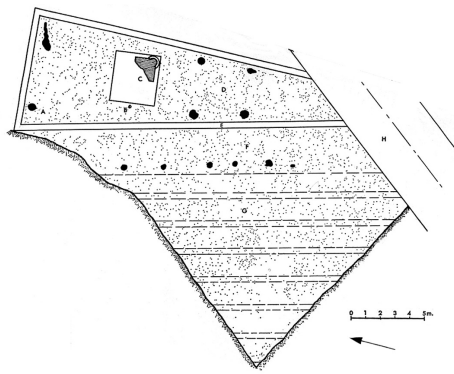
HOW TO RECOGNIZE A ROMAN TOMB GARDEN

Every survey of Roman burial practices and every general study of Roman gardens include discussions of tomb gardens, but as Wilhelmina Jashemski discovered more than thirty-five years ago, even if one looks diligently for material evidence of their remains at well-preserved sites where they may be expected to have been common, indisputable signs of their presence are difficult to find.¹ Evidence for plantings from, for example, ancient root systems is seldom encountered at the well-trodden and replanted tomb sites of ancient Pompeii and is virtually nonexistent at most other excavated gravesites in the ancient world. Near neighboring Scafati, however, the chance discovery in 1964 of a Roman tomb dating to before the eruption of Vesuvius in AD 79 enabled archaeologists to identify, within a triangular area around the monument delimited by a low tufa wall, the root cavities of six large trees – two in the corners at the back, four in front of the tomb – and, across the ancient street that ran beside the plot, a row of six trees in front of a series of furrows (Figures 8.1A and 8.1B).² The four trees in front of the tomb frame an elliptical area circumscribed within them by a shallow ditch surrounding a low *tumulus* of earth and burned material – evidently the location of an *ustrinum*. The trees (perhaps cypresses or boxwoods) must have been planted after the cremation, since not

Figure 8.1A Tomb garden at Scafati, plan, after Jashemski 1979, fig. 231.



A



B

Figure 8.1B Tomb garden at Scafati, plan, after Jashemski 1979, fig. 230.

even the heartiest evergreen could have survived the heat of a Roman pyre burning little more than a meter away and consuming nearly half a cord of wood over some eight or nine hours.³ Indeed, the disposition of the trees around the mound suggests that they were intended to mark the site of the cremation; if the enclosed area included other plantings, no trace of them have survived.

The life of a Roman funerary garden formally began only when an occupied

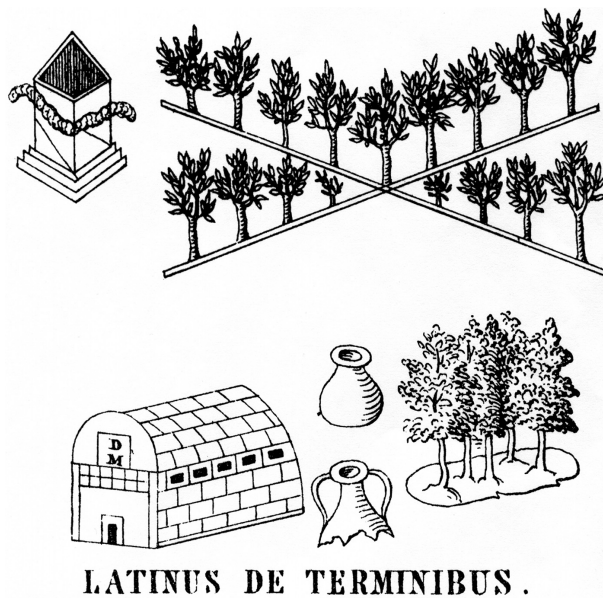
gravesite was planted or when a planted area was consecrated by the deposition within it of a Roman burial, and often we do not know, when evidence of both is found at the same location, which one preceded the other or indeed whether the two uses of the plot are to be directly associated with each other.⁴ According to pontifical law, as reported by Cicero, the site of a Roman grave was a *locus religiosus*, a place bound by *religio* and therefore not liable to any other use, on the grounds that “the sanctity of graves ... lies in the soil itself, which cannot be moved or destroyed by any force.”⁵ Jurists of the early Imperial period interpreted the law narrowly, restricting the grave’s sanctity at first to the immediate area where the remains were inhumed and then only to the tomb monument proper but not the land surrounding it.⁶ At the beginning of the third century Papinian drew an explicit distinction between the sanctity of the grave and “the places within the perimeter walls of tombs kept free (of religious restrictions)

for gardens and other plantings"; and at the end of antiquity Justinian's Code reaffirmed that "the unencumbered land attached to a tomb monument is of profane status."⁷ Legal opinion notwithstanding, Roman tomb owners from the first century onward tried to protect the cultivated lands and other productive properties attached to their monuments by declaring them inalienable from the tomb itself and thus, it was hoped, sheltering them beneath the umbrella of the tomb's religious protection. One man from Rome specified as belonging to his tomb "this place bound by a wall with its little sacred garden (*hortulo religioso*) and its little buildings"; another, at a spot near the fourth milestone on the Via Latina, attempted to attach to his monument "this place or garden of about five twelfths of a *iugerum* [about one quarter of an acre] enclosed with a wall, and whatever receptacles are under the reservoir inside the wall." A man from Tibur specified "this place as it is enclosed by a perimeter wall for the religious protection (*ad religionem*) of the tomb"; another from Fundi declared to be "holy and religious (*sanctus religiosus*) ... this place enclosed by a wall along with whatever is in it with the wall"; and so on.⁸

In the neighborhood of Rome the enclosure around a tomb marking the area as a *locus religiosus* gave the funerary garden an enduring viability not shared by other cultivated plots in the crowded suburban districts just beyond the city walls, where Romans looking for extramural burial sites competed for space not only with the suburban villas of the wealthy but also with warehouses, manufactories, transportation depots, markets, and squatter communities of laborers (notably teamsters,

tanners, and brickmakers) and marginalized groups such as funerary tradesmen, foreign immigrants, and devotees of certain exotic cults.⁹ In this crowded zone, more cargo belt than green belt, even the smaller enclosed open spaces around tombs may have been pressed into productive service in order to supply the high-volume fruit and vegetable markets of Rome. Farther out from the city larger plots, such as the quarter-acre tomb garden at the fourth mile of the Via Latina, provided greater opportunity for cultivation, but to what extent productivity and profit were systematically pursued at these garden locations is unclear.

Outside of Rome the situation was different. In rural settings tombs were often placed at the margins of properties in the small parcels of land known as *subseciva*, the irregularly shaped (often triangular) plots unsuitable for plowing and so "cut off" from the larger tracts of land marked out for cultivation.¹⁰ In these peripheral zones, the sanctity of the gravesite and the visibility of the monument helped to identify and to protect the borders between properties.¹¹ The author of one Late Antique treatise on land division advised surveyors to distinguish carefully between the boundaries of land attached to tombs and tombs that themselves marked the borders between properties, which could be identified by plantings of box trees or the burial of cremated remains or pottery near the monument (Figure 8.2).¹² The elongated, triangular shape of the tomb plot at Scafati has the look of just such a *subsecivum*, and its combination of *ustrium*, interred ash urn, and symmetrical arrangement of trees answers remarkably well to the schematic drawing that accompanies the text.¹³ Just as *subseciva* normally



LATINUS DE TERMINIBUS .
Figure 8.2 Illustration of *subseciva*, after Blume et al. 1848–52.

marked off land unfit for plowing, so the plot at Scafati (Figure 8.1B) seems to have been minimally exploited as a productive garden compared with the field across the road (F), where deep, regular furrows (G) reveal the practice of systematic cultivation.

As a tomb garden Scafati represents a modest specimen, near the edge of what might be considered a formal garden, but with it Jashemski cut the Gordian knot that had tied debate about the use of similar small precincts around tombs outside the Nola and Stabian gates at Pompeii: the presence of an *ustrinum* there need not preclude the existence also within the same enclosure of organized planting, that is, of a funerary garden. The two features were not mutually exclusive but might coexist or even succeed one another in the same location over time, as at Scafati. Jashemski went on to point out, rightly, that many similar small enclosures at Pompeii and elsewhere could have accommodated modest gardens and that “the desire for a

little green and a few flowers appears to have been a basic part of the Roman character.”¹⁴ More particularly, as numerous funerary poems make clear, cultivating a tomb, for the Romans, meant decorating it with flowers regularly: “I beg you, you who will hold this plot, favor my prayer and be willing to adorn the seat of this epitaph annually and cherish my monument through the welcome passage of time with dewy roses or pleasing blossoms of amaranth and fruits of many various and novel kinds, so that it can be replenished with each year of time.” Ideally, flowers grew naturally around the tomb: “May the earth lie light on you and amomum rise up from your burial mound and sweet-smelling roses hem your buried bones.”¹⁵

Herein lies the problem: if the Romans could and, where conditions permitted, no doubt often did plant trees to mark tomb plots and encouraged greenery and flowers in the small enclosed areas around them, when (and how) did they distinguish this sort of basic landscaping from a more formally defined funerary garden? How should we? That the Romans recognized a difference between natural greenery at gravesites and a proper tomb garden is made clear by epitaphs referring to “a tomb with a garden” or “a tomb and garden,” and by the emergence at Rome during the latter half of the first century of a compound term (borrowed from Greek), *cepotaphium*, to describe a characteristic combination of the two (*kepos* “garden” + *taphos* “tomb”).¹⁶ Quintilian illustrates the ambiguity of such compound words by citing the case of a man who, in designating an area of land around his tomb for the care of his ashes, fails to make clear whether he intended to be buried in a cultivated area (*in culto*

loco) or an uncultivated one (*inculto loco*).¹⁷ Ambiguity arose not simply because the words could be understood in two ways but because the situations they described were equally plausible. The concept of cultivation might seem to provide a basic means of distinguishing between casual greenery at a Roman gravesite and a proper tomb garden, but cultivation was a flexible concept, at the most basic level simply implying any form of care, and as far as religious scruple was concerned, merely pulling up a few weeds around the monument satisfied the requirements of piety. At the other extreme, some Roman tombs had productive acreage of arable land attached; others boasted orchards or vineyards; yet others were surrounded by vegetable or flower gardens. The range of agricultural uses to which the lands attached to tombs were put is wide, and if we want to understand their purpose, we should not try to draw too fine a distinction between tomb gardens in the narrow sense and other forms of productive cultivation associated with tombs.

Trimalchio, the freedman hero of Petronius' *Satyrical*, expresses with characteristic lack of finesse a fashionable ideal when he imagines his ashes surrounded by "all kinds of fruit-trees and lots of vines" and likens the planting at his tomb to the cultivation of his home: "And let (the plot) be 100 feet in width and 200 in depth, since I want all kinds of fruit trees around my ashes, and lots of vines. For it is surely wrong to cultivate our homes while we are alive and not to care for those where we will have to dwell longer."¹⁸ For Trimalchio the crops surrounding his monument enhance it in the same way a peristyle garden enhances a house: by adding amenity and providing a verdant

setting for the life of cultured *otium*. Cultivating a tomb, like cultivating a villa, meant exploiting the environment appropriately, and for this purpose harvesting the bounty of the natural landscape was ideal, since it displayed the ultimate blessing of the life of sophisticated ease: total self-sufficiency and autonomy. In the crude, but fundamentally correct, calculus of Trimalchio's social economy, cultivation was culture. As one of his awe-struck friends remarks, "don't imagine he has to buy anything: everything is grown at home: wool, citrus fruits, pepper – if you want hen's milk, you'll find it."¹⁹ The measure of Trimalchio's success is not simply that he lacks nothing; it is that he meets his extravagant needs entirely from his own resources. Just as his suburban and rural estates supply his living needs, so the vines and fruit trees around his grave will succour him in death by defraying the cost of the upkeep of his monument (a freedman custodian is assigned to its protection); but it is less the economic rationale of self-sufficiency and a productive exploitation of the landscape than the aristocratic values they represent that reveals Trimalchio's aspirations.²⁰

In specifying the dimensions of his plot Trimalchio points to another characteristic feature of the Roman tomb garden – a well-defined perimeter. In this respect Roman tomb gardens were no different from other productive gardens in the Mediterranean world, where fresh water supplies adequate to support intensive horticulture were always precious and the plots they irrigated had to be protected from predators.²¹ Indeed, the single feature mentioned most often in Greek and Latin inscriptions identifying tomb gardens is the masonry perimeter wall (*peribolos* or

maceria) of stone or, in Roman times, fired brick.²² Latin authors attest a close association of *maceriae* with gardens from at least the early second century BC, and in Greek literature and inscriptions of the Hellenistic and Roman periods the term *peribolos* could stand by itself metonymically for “garden” or “grove.”²³ Like gardens, watered orchards (*pomaria*, in Greek *paradeisoi*) were subject to depredation, and since the realities of Mediterranean gardening mean that fruit trees and vegetable beds regularly shared the same plots, we cannot expect semantic precision in the terminology to help us distinguish gardens from orchards. Introduced into Greek by Xenophon to describe the enclosed hunting parks of the Persian kings, the word *paradeisos* had by the third century BC come to stand for any orchard or garden. Derived from the Avestan term for a watered plantation, *pairi-daeza*, literally “a circumvallation” (*daeza*, “wall”), *paradeisos* defined a planted area by the clay or mud brick wall around it. So closely was the idea of the garden-orchard linked in antiquity with its enclosed perimeter that one could not speak of the first without invoking the second. The common linguistic associations among Latin, Greek, and Old Iranian in this instance reflect a shared conceptual model: in the ancient Mediterranean world a cultivated garden or orchard was unimaginable without the protective enclosure that surrounded it.

But if some sort of perimeter barrier was essential it does not therefore follow that we can identify a funerary garden simply by the presence of one. Any Roman gravesite, as a *locus religiosus*, had to be clearly demarcated, and many walled tomb enclosures in Rome and elsewhere (especially in northern Italy, where *tombe a*

recinto were popular) were unsuitable for planting because of the quality of the soil (as at sandy Isola Sacra) or the nature of the terrain (as at the necropolis built into the steep southern slope of the *mons Vaticanus* along the Via Triumphalis now beneath the nave of St. Peter’s basilica and the nearby parking lot) or the distribution throughout the plot of marked burials (as at Aquileia and Sarsina).²⁴ The popularity of border *cippi* at the corners of gravesites and the frequency with which plot sizes are mentioned in inscribed epitaphs suggest that marking the inviolability of the monument and delimiting the consecrated area were basic aspects of Roman funerary behavior. In other words, whereas most, if not all, Roman tomb gardens were protected by perimeter walls, not every *maceria* or *peribolos* around a tomb delimited a garden.

Typology alone, then, does not normally enable us to distinguish the material remains of funerary gardens from other types of tomb enclosure. In the rare instances when visible signs of systematic planting around a tomb can be identified, we cannot in most cases determine whether the garden was planted before or after the tomb was consecrated nor can we know for how long the garden was actively cultivated. Occasionally, however, at well-excavated sites in rural and suburban contexts, we can see how a Roman tomb garden related not only to the funerary monument with which it was associated but also to the rest of the villa property on which such monuments were frequently located. These opportunities enable us to glimpse the working out on the ground of the conceptual universe that tied the ideal cycle of birth, life, and death to a single parcel of land comprising house, garden, and tomb.²⁵

The so-called Villa of the Mosaic Columns outside the Herculaneum Gate at Pompeii illustrates one type of arrangement (Figure 8.3). Opening off the rear of an elegant suburban villa (a) built up above and behind a row of shops along the east side of the Street of Tombs (16–21), an irregular courtyard with *lararium* shrine (b) leads through a broad entrance-way onto an elegant ornamental garden. In the center of the garden, aligned with a passageway (12) leading to the street, a shallow pool in the shape of an *impluvium* (c) (originally decorated at the corners by the four brightly colored mosaic columns from which the property takes its name) supported a pergola that framed the view from the street of an ornate mosaic fountain with water steps set into an apsidal niche in the east side of the garden wall (d); marble and terracotta statuary on low columns flanked the niche on either side (e).

The garden was planted with several large trees grouped together at the south end (f) and two small flowerbeds and a smaller tree at the north (g, h). Near the trees at the southwest corner of the garden a substantial doorway in the rear wall provided access to an irregular tomb plot 0.7 meters below, which was enclosed by a high (3.6 m) wall built during the last period of the city and planted with a small tree in the northwest corner (i) and a flower bed along the west and south sides (j). The west wall of the plot was interrupted by a narrow entrance into the rear of a monumental tomb fronting on the Street of Tombs and named after a blue glass cameo vase in the shape of an amphora found in its central niche (8); adjacent to the Tomb of the Blue Vase to the north, the curved rear wall of an apsidal roofed niche-tomb housing a semicircular bench for the accommodation of passersby completed the western

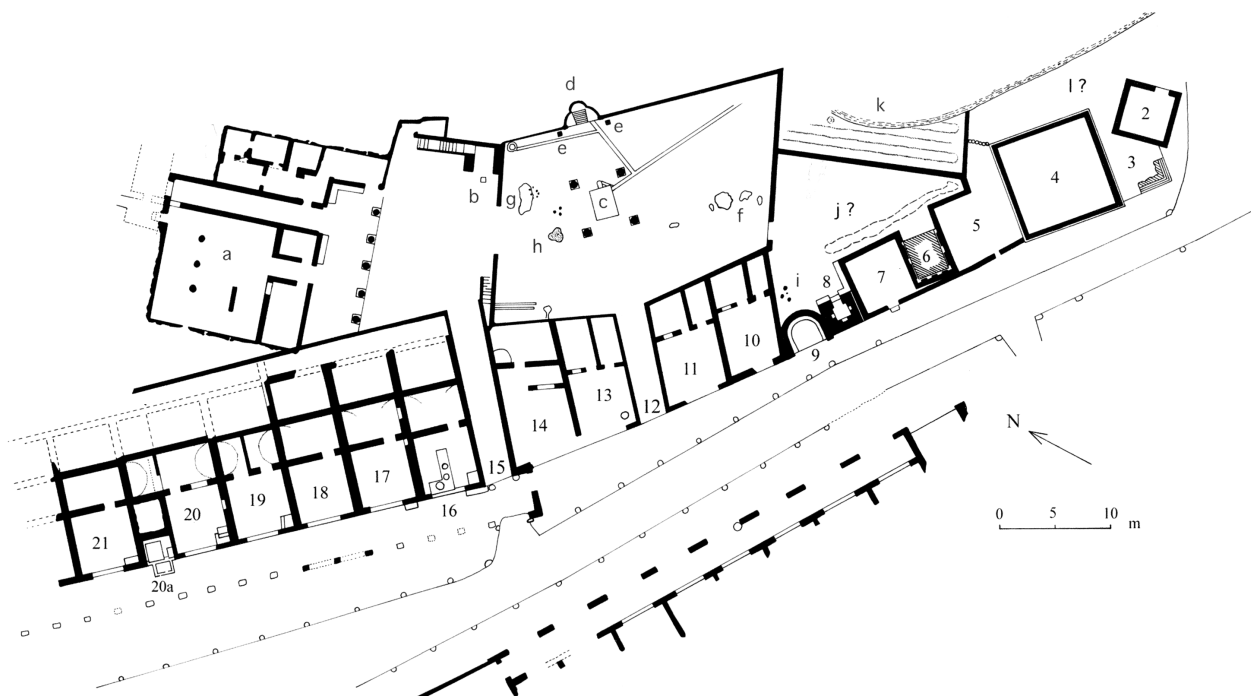


Figure 8.3 Villa of the Mosaic Columns and attached properties outside the Herculaneum Gate, Pompeii, plan, after Jashemski 1979, fig. 242.

side of the tomb enclosure (9). Both tombs evidently belonged to the Villa of the Mosaic Columns, as too, it seems, did the two shops flanking the passageway from the street to the villa garden on either side (10–11, 13–14) and perhaps also at one time the partially uncovered vegetable garden (evident from the rows of furrows) laid out behind the eastern wall of the tomb garden (k). In the bank of ashes and volcanic debris found behind tombs 3 and 4, large round cavities mark the location of several large trees, evidently uprooted during the eruption, which originally formed a green curtain behind the tombs lining the street.²⁶

The ensemble comprises a single interconnected complex of villa, pleasure garden, tomb garden, and tomb, with adjoining productive properties (*tabernae* and cultivated land), each element discrete from the others and yet the whole effectively projecting the Roman virtues of productivity and piety against a background of cultured sophistication.²⁷ Access to the incorporated tomb (8) is afforded only from the tomb garden, and to the tomb garden only from the villa garden. The covered bench tomb (9) and adjacent shops (10–11, 13–14) open only onto the street and allow no communication with the villa itself; the kitchen garden behind the tomb plot is likewise isolated from the central complex. The nucleus of the network is the ornamental garden, which provides access directly to the street via a passageway (12), to the residential quarters via the courtyard, and to the tomb via a monumental entrance into its garden. The public is afforded an inviting view from the street of the heart of the complex, but the space itself is separated from the outside world by a long narrow corridor.

Communication between villa and garden is eased by the open courtyard and the broad entranceway in the garden's north wall, whereas access to the tomb garden is set off by its entablatured entranceway at the rear corner of the garden. The courtyard area and the tomb garden on either side of the central garden form transitional buffer zones between, on the one hand, the residential area of the living (clearly demarcated by the *lararium*) and, on the other, the religiously segregated space of the dead.

Just as tombs frequently occupied the *subsecivae* of large rural farms, so the gravesites of suburban *horti* were often located at the margins of properties, sometimes, as here, at the farthest point from the villa residence. The worlds of the living and the dead were defined by opposition to each other and had to be kept physically distinct, yet each was dependent upon the other for maintenance and support toward the ultimate Roman goal of propagating the *gens*. Cultivation of the graves of ancestors by living descendants ensured the continuity of the clan, which was represented for the living by the family home; preservation of the latter was in turn guaranteed by the location on the same property of a familial grave or graves, which militated against alienation of the residence. Conceptually and topographically the garden thus sits at the center of the suburban *horti*, modulating the ambivalent terrain between the two domains of house and tomb. At the Villa of the Mosaic Columns freedom of access threads through the complex from one end to the other and separates the villa-garden-tomb axis from the productive properties adjoining and supporting it on either flank. From the terrace of the villa

the proprietor could gaze with satisfaction across the flowerbeds and pergola to the trees beside the small gate at the back of his garden and, beyond the rear wall, to the regular furrows of the vegetable garden and the *giardino segreto* that shielded the Tomb of the Blue Glass Vase, along with the shops adjoining it and fronting on the street. Such a vista encompassed the monuments of familial duty, amenity, productive cultivation, and commerce – the full complement of accessories needed for a life of respectable leisure (*otium honestum*).

A more elaborate example of a tomb-villa-garden complex, differently configured but drawing on the same mutually interdependent relationship of opposition and alliance between villa and tomb, has now been discovered at Hadrian's Villa at Tivoli.²⁸ Recent excavations along the western edge of the complex near the Central Vestibule uncovered a paved road ending in a circular drive by which carriages, delivering visitors to the stairs at the entrance, could discharge passengers and depart without turning around.²⁹ As the road approached the entranceway from the north, it skirted the perimeter wall of a large apsidal structure situated just outside and perpendicular to the long peristyle garden that preceded the central courtyard of the vestibule. This monumental complex, traces of which have occasionally been observed since the seventeenth century, can now be seen to have comprised two temples facing each other in front of a huge *exedra* 30 meters in diameter, more than twice as large as that overhanging the *triclinium* at the end of the Scenic Canal (Canopus). By what means this large enclosed area was entered and what access, if any, it provided to the

ornamental garden are not yet known, but it is clear that the entire self-contained complex was located outside the main villa grounds. Brickstamps found in the temples and the niched enclosure reveal that the buildings, which evidently remained unfinished at the time of the emperor's death, were constructed during the years following his return to Rome in AD 134. Location, size, date, and decoration (much Egyptianizing statuary was found in the vicinity) all point to the conclusion that this was the tomb or cenotaph of Antinous, Hadrian's favorite, whose tragic death by drowning in the Nile in AD 130 the emperor commemorated extravagantly by fostering a cult of the deified youth throughout the empire.³⁰

In accordance with Antinous' new status as a divine being, his monument at the imperial villa far outstrips in grandeur ordinary funerary *exedrae* (such as the one backing onto the tomb garden of the Villa of the Mosaic Columns, no. 9 on the plan in Figure 8.3 above) and incorporates a pair of tetrastyle temples facing each other at the ends of the semicircular foundations of the apse that dwarf in size the aedicular shrines commonly found in ornamental gardens. Among the seven or eight portrait representations of Antinous found at the site, novel types assimilating him to Osiris and Dionysus suggest a possible attribution of the two shrines to two manifestations of the deified boy: as the Egyptian lord of the underworld (at Antinoöpolis, the city founded near the site of his death and the chief center of his cult, he was worshiped as Osirantinous) and as the Olympian scion of Zeus, an agent of regeneration.³¹ It is in any case clear from the positioning of the Antinous monument in strict relation to the formal

garden in front of it (the north perimeter walls of the two enclosures appear to be aligned) that the latter served the traditional function of a funerary garden at a villa site in providing a transitional zone between the residential complex and the commemorative space of the dead.³²

BY ANY OTHER NAME ...

Hortus / Horti

Since we cannot with any confidence identify a distinctive archaeological footprint of the Roman tomb garden, we turn for help to textual sources and immediately confront the problem of terminology. The standard term for garden in Latin is *hortus*, and Roman funerary gardens are more often described with this word, in both inscriptions and literature, than with any other. Beginning in the first half of the first century BC, however, the same word (normally in the plural form, *horti*) came to be used by Romans of the property-owning classes, and following them by the more prosperous residents of Italian towns, to describe euphemistically their elegant suburban estates.³³ Pliny the Elder, writing in the 70s, decries the transformation of the term and the cultural developments that caused it: “nowhere in the Twelve Tables of our laws [ca. 450 BC] is a country house (*villa*) named; always the word ‘garden’ (*hortus*) is used in that sense ... Nowadays, on the other hand, under the name of ‘gardens’ (*horti*) people own luxury farms and villas in the city itself. The practice was first introduced at Athens [at the end of the fourth century BC] by Epicurus, the master of leisured ease (*otii magister*) ... At Rome, indeed, a

garden (*hortus*) in itself was a poor man’s farm (*ager*).”³⁴ When Cicero in May of 45 BC archly refers to Atticus’ well-appointed villa at Astura as “the garden” (singular: *horto*), he follows the old-fashioned usage favored by Pliny; three months later in writing to Atticus about a joint inheritance with Caesar of the suburban estate of a certain Cluvius (*horti Cluviani*) at Puteoli, he adopts the modern convention of employing the plural form and illustrates its early diffusion to the playgrounds of the Roman elite along the Bay of Naples.³⁵ This is precisely the period when suburban gravesites first begin to be associated with tomb gardens in our literary and epigraphic sources. That is the problem: since tombs are regularly found with both types of suburban *horti*, Roman funerary gardens, virtually from their inception, are enmeshed in the ambivalence of the term in both literary and epigraphical sources.

When a patron hands over to his freedman certain *hortuli Epagathiani Dadu[chiani]* near the third milestone of the Via Labicana on condition that annual observances be performed at his monument there, we can feel reasonably confident that he refers to a productive tomb garden rather than a suburban estate, because the patron describes the *hortuli* as equipped “with a building and vineyard enclosed by a wall.” A cenotaph set up at Rome “in the gardens of Allius Filetianus” (*in hortis Alli Filetiani*), on the other hand, was more probably erected at a suburban estate than in a tomb garden, since the three men named in the dedication bear no apparent familial connection to the Allii. In the case of an epitaph dedicated by a freedman Manlius to his fellow freedwoman and wife in a quarter-acre plot “in these Manlian gardens” (*in his*

hortis Manlianis) at the third mile of the Via Appia, the balance perhaps tilts slightly in favor of the view that we are dealing with a private villa (possibly owned by the *patrona*), but Manlius may well have commemorated his wife in a tomb garden surrounding a familial monument.³⁶ We cannot, in fact, be certain in any of these cases, and indeed, many tombs described as being on a suburban estate (*in hortis*) might also in fact be in a tomb garden (*in horto*): the owner of the Villa of the Mosaic Columns at Pompeii might well have described his niche monument thus.

One well-known Roman epitaph (and one of the earliest attested epigraphic instances of the term) reveals an ironic awareness of the word's ambiguity already in the time of Cicero and Varro. In dedicating a tomb at Rome to himself and his family sometime around the middle of the first century BC, a freedman doctor declares expansively in his epitaph: "This is our eternal home (*domus*), this our farm (*fundus*), this our estate (*horti*), this our memorial (*monumentum*): thirteen feet in frontage, twenty-four in depth."³⁷ The modest dimensions of the plot belie the lofty characterization of the property as both "farm" and "estate" and bring down to earth the pretensions of the contemporary grandees who styled their suburban palaces "kitchen gardens" (*horti*). More importantly for our purposes, the epitaph makes clear that terms such as *domus* and *monumentum*, *fundus* and *horti*, though properly and regularly applied to specific architectural or agricultural entities (house, tomb, farm, gardens), were conceptual rather than descriptive designations, based on perception and attitudes rather than objective reality. The idea of "gardens," like that of "country," was relative,

and just as the Latin term *domus* embraced a spectrum of English conceptions ranging between "house" and "home," so *horti* could describe virtually any type of vegetal cultivation from the simple planting of a few flowers or herbs, or the intensive production of vegetables and fruit for the urban market, to the careful modeling of a peristyle pleasure garden.³⁸ *Horti* at tomb sites could be any of these.

Cepotaphium

More precise in application than *horti*, because restricted to the funerary sphere, but no less ambiguous in definition, the Greek term *cepotaphium* first came into use at Rome during the second half of the first century AD and, after *hortus*, became the preferred term for funerary garden during the second and third centuries. The formation of the compound noun indicates that a tomb and garden are referenced, but what sort of relationship they bore to each other remains uncertain. The standard Greek-English lexicon reveals some progress in definition – originally "tomb in a garden," now "garden with a tomb" – but the change of preposition does not resolve the fundamental question of the relationship between the two, nor can it tell us what relation the Greek *kepotaphion* bore to the Roman *cepotaphium*.³⁹ According to the *Oxford Latin Dictionary* the latter meant "garden tomb," but what process may have caused this inversion of identity following the transplantation of the *kepotaphion* to Roman soil (from a garden with a tomb to a tomb with a garden) remains mysterious. Clarity may be found, and must be sought, in a return to the evidence, of which the chronological

and geographical distribution has not perhaps been sufficiently recognized.

In Latin the word *cepotaphium* appears in inscriptions some twenty-five times; in literature not at all. Of the epigraphic attestations, none can be dated earlier than the second half of the first century and most, to judge from the Imperial *gentilicia* of the freedmen named in them (Ulpius, Aelius, Aurelius), belong to the second or third century. Four out of five examples come from Rome; elsewhere in Italy the term is rare, beyond the peninsula unrecorded. With the Latin label *cepotaphium*, then, we are dealing with a phenomenon characteristic of the capital from the late first through the third centuries, one not particularly common elsewhere, even in Italy, with the possible exception of Campania, and not earlier.

The Greek term *kepotaphion* is even more rare. It seems to be attested only seven times, thrice in the same passage of the *Lausiac History* of the fifth-century Bithynian bishop Palladius, who relates a visit during the fourth century AD of the Egyptian desert monk Macarius (formerly a successful fruit merchant at Alexandria) to a funerary garden built of stone blocks by priests of Pharaoh and adorned with much gold and a cistern, in which they grew trees.⁴⁰ The setting is significant: gardens had enjoyed a long life in Egypt, from the time of the Old Kingdom in the third millennium BC down through Late Antiquity. Painted depictions in New Kingdom tombs of the second half of the second millennium suggest that private tomb gardens of that period were modest in size but formal in design, presenting a geometrical layout of trees, vines, shrubs, and ornamental flowers concentrically disposed in frames of increasing height

around a pool or well. The purpose of such tomb gardens is made clear by the frequent representations of produce as funerary offerings and, most explicitly, by a painted text beside one of the garden paintings in the tomb of Rekhmire from Thebes, which explains that the dead receives fresh flowers, vegetables, and fruit from his garden for his life in the world beyond and is encouraged to enjoy the greenery of the venue after death.⁴¹ The *kepotaphion* visited by Macarius evidently belongs to this tradition of organized plantation orchard, formally arranged and intended to provide amenity for the priests of Pharaoh.

The four documentary instances are earlier and more relevant, not least for their provenance. Two come from Alexandria or nearby, one from Ilias in Pisidia, and one (again) from Rome.⁴² The popularity of garden tombs at Alexandria is affirmed during the Augustan age by the geographer Strabo, who describes the western suburb of Necropolis as containing "many gardens and tombs and embalmers' quarters" (Figure 8.4). Documents from the vicinity give a clear picture of how they were used.⁴³ The first, which provides our earliest attestation of the term, is a papyrus text, dated in 5 BC, recording a lease for five years of three *kepotaphia* at Canopus "in the so-called Palm Grove." The gardens, which were surrounded by a perimeter wall produced (among other crops: the text is lacunose) asparagus, fresh grapes, mixed plantains, beetroot, leeks, cabbage, figs, round gourds, great jujubes, palm-leaf dusters, mistletoe, kitchen vegetables, and land snails.⁴⁴ Even if diversity of crops were advantageous in itself, one gets the impression that every effort has been made to exploit the productive capabilities of the plot to the fullest. We must

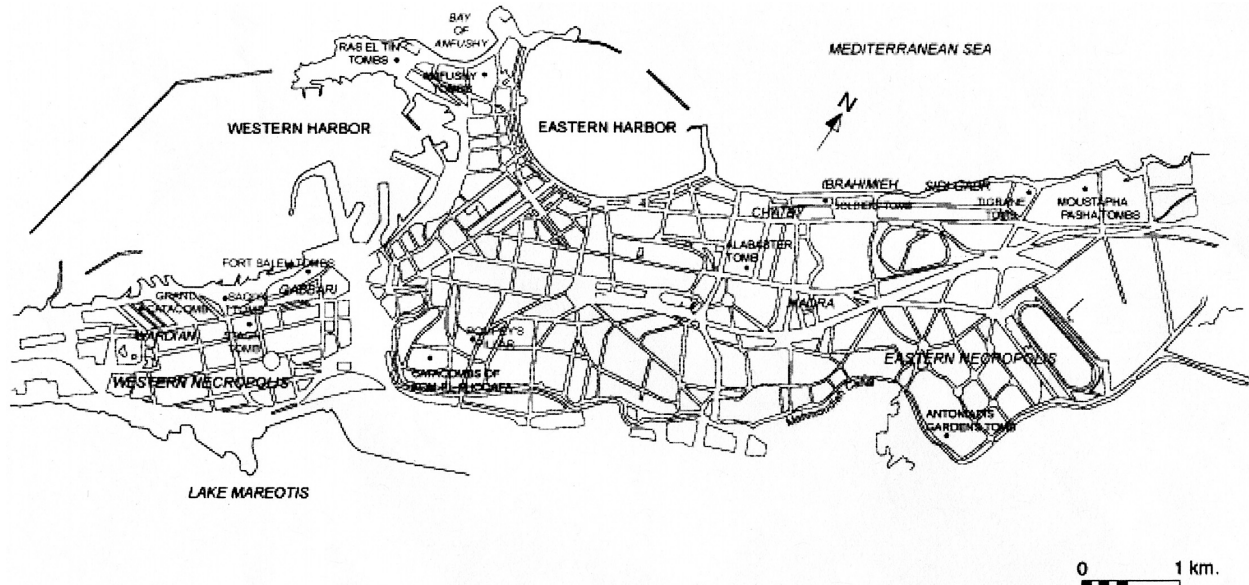


Figure 8.4 Ancient Alexandria, plan, after Venit 2002, fig. 1.

picture harvesting occurring on, above, and below ground, at different seasons for different markets.⁴⁵ Rent was to be paid annually, partly in cash and partly in “the biggest and best” produce of the year. This last provision suggests that the lessors retained a vestigial interest in the use of the property other than for purely monetary gain, but there is no sign in the lease of any provision for the care of the tomb (or tombs), or the granting of access to them to family members or others, despite the fact that both Egyptian and Roman funerary ritual involved regular veneration of the dead at gravesites. That all three *kephotaphia* were enclosed by a single perimeter wall suggests that the gardens themselves may have been discrete from the tombs with which they were associated, perhaps in a common area marked out within “the so-called Palm Grove.” Strabo’s description of Necropolis as containing “many gardens and tombs” allows the possibility that the two elements were distinct features of the landscape, interspersed

but independent, rather than integrated and self-contained. The architectural configuration of Alexandrian tombs of the Ptolemaic and Roman periods – cut vertically into the rock, centered on an open sunken court demarcated and protected at the surface by a parapet, and accessible via covered rock-cut staircases – makes it possible to imagine market gardens situated at ground level in a common area among several tombs as being contiguous with each other as well as with the tombs that they supported and yet collectively circumscribed by a single perimeter wall.⁴⁶

In at least one case, however, a splendid tomb of the early Ptolemaic period (perhaps the first half of the third century BC) from the formally organized cemetery at Moustapha Pasha east of the city near the seashore, the footprint of a formal funerary garden is cut into the floor of a large sunken court that occupies most of an area in front of a raised platform (Moustapha Pasha Tomb 3, Figures 8.5A–B). Funerary rites were evidently performed in an area

Figure 8.5A Moustapha Pasha Tomb 3, Alexandria, section and plan, after Adriani 1966, fig. 192.

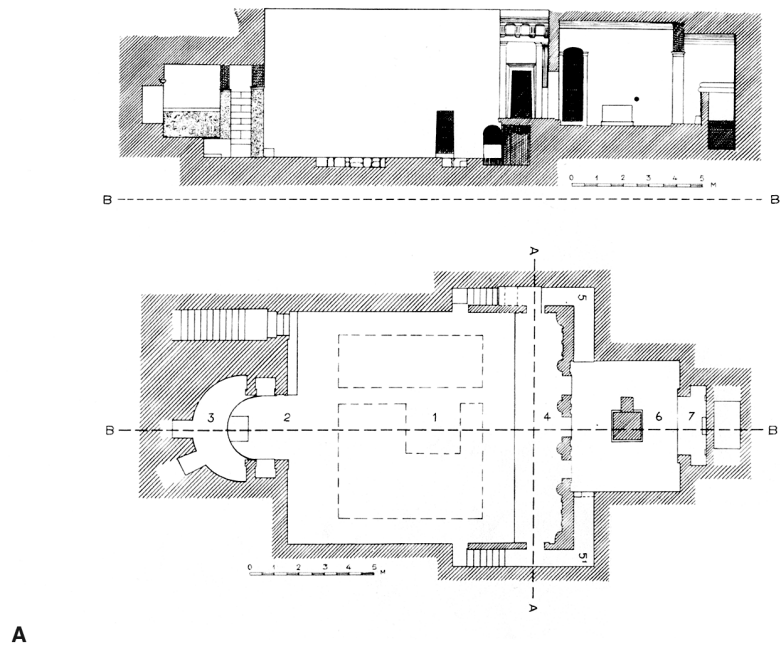
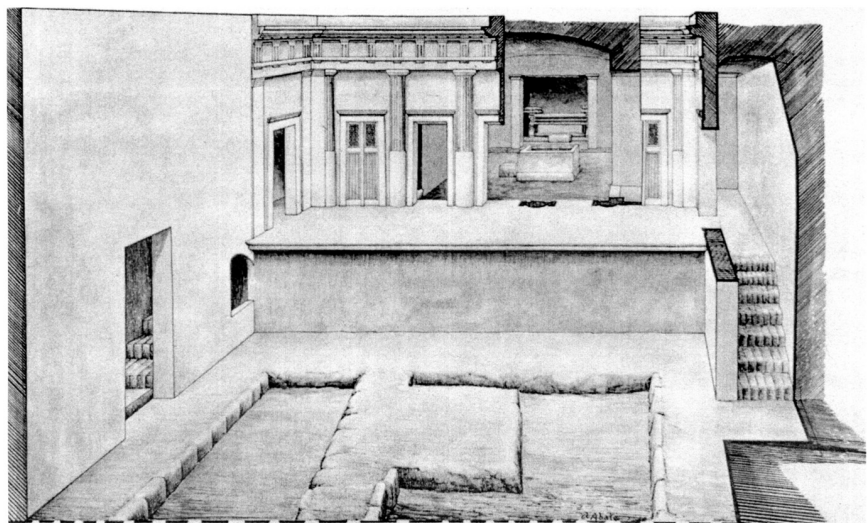


Figure 8.5B Moustapha Pasha Tomb 3, Alexandria, reconstruction after Adriani 1936, pl. xxxii.



marked out in the garden to be in axial alignment: to the north, with an altar on a platform and a *kline* room behind it; and to the south, with a semicircular *exedra*, which provided seating with a view to the back of the tomb.⁴⁷ The arrangement of the planting seems to owe more in conception to the *heroa* popular throughout

the Hellenic world during the Hellenistic period and, in the formality of its design, to the decorative landscaping of the interior gardens of the Alexandrian royal palaces than to the sort of intensive horticulture practiced in the three *kepotaphia* at Canopus. It is difficult to imagine lessor gardeners of the sort attested there raising

and harvesting crops and vegetables in a garden plot so manifestly focused on a formal articulation of the funerary space.⁴⁸

The other Alexandrian document to identify a *kepotaphion* is a Roman-style epitaph (dedicated “to the Divine Shades”) erected some four hundred years later, during the second century, probably at Ibrahimiya in the eastern necropolis, by a certain Pompeia Mousa for her son and husband “and their freedmen and freedwomen and their descendants, to be held in common, undivided, inalienable, not to be burdened (with mortgages), and not to be transmitted by will, for all time.” Following the clause establishing Mousa’s foundation, the document goes on to record a curious combination of (apparently) a verbatim record, in dialogue form, of a legal action brought by a person described as a *karpistes* before the Idios Logos around the year AD 90 charging that the funerary garden had been sold illegally under the pretext of a lease and, at the end, the declaration of a subsequent heir to the garden, who had “looked after and exploited” the *kepotaphion* for ten years.⁴⁹ The legal situation is difficult to untangle, but it seems that the *karpistes* was the owner of the rights to harvest the produce at the time the petition was filed, and that an external heir, having subsequently inherited the property at the death of the last agnatic descendant of the founder, asserts his legitimate right, as the one who tends the tomb, to harvest the garden.⁵⁰ Whatever the position and role of the *karpistes*, the Idios Logos rules that those who sold the tomb illegally “will be required to surrender what they wrongfully received, while the tomb shall remain the property of the bodies lying therein, unmortgaged” [for all time?]. This verdict accords with

the Hadrianic jurists’ legal separation of Roman graves (inalienable *loca religiosa*) from the productive properties that testators attached to them and at the same time satisfies the terms of Mousa’s foundation. The important points for our purposes are that: Mousa had intended a productive tomb garden to provide revenue in perpetuity for her descendants; an illegal sale of the inalienable property was corrected by legal intervention; and ultimately an heir from outside the family asserted the legitimacy of his exploitation of the property by demonstrating his care for the tomb. Unlike at Canopus during an earlier period, in the Roman foundation of Mousa, tomb and garden, though legally of differing status, are inseparably bound – the disposition of one affecting that of the other. The right to profit from exploitation of the property is linked with the responsibility traditionally incumbent upon a Roman heir to care for the tomb. Here is the clearest sign of the change in the disposition of Alexandrian *kepotaphia* brought about by the influence of Roman tomb law and funerary practices.

The other two attestations of the term *kepotaphon* in Greek both derive from later Roman contexts and reflect this same close association of garden with tomb. In the earlier of the two, of the second or third century AD, a Greek-speaking couple dedicate to their deceased ten-year-old son “an eternal bridal chamber” (*aionion nymphona*) and “for themselves, in expectation of their death ... a memorial tomb garden” ([*mne*]meion *kepotaphon*) beside the Via Latina south of Rome; in the other, a fragmentary epitaph of the third or fourth century AD from Pisidia in Asia Minor, a man erects a monument “in its own *kepotaphon*” to his wife and children.⁵¹ The

commemorative functions of these gardens seem foremost, but one cannot rule out the possibility that both served also as working kitchen plots.

The word *kepotaphion*, then, appears to have originated at Alexandria in the late Ptolemaic or early Roman period, where it described a type of productive kitchen garden associated with tombs, and was characteristic already by the Augustan age (on Strabo's testimony) of the western garden suburb of Nekropolis. The gardens could apparently be leased separately from the tombs associated with them, and their exploitation as productive properties – a profitable venture in the crowded metropolitan periphery – had little if anything to do directly with the maintenance of the tombs or the cult of the dead. In earlier Ptolemaic times, Alexandrian funerary gardens such as that carved into the sunken courtyard of Tomb 3 at Moustapha Pasha were integrated into the tomb architecture and seem to have served an ornamental, or possibly a religious, but not, primarily, a productive purpose. Whether or not this sort of funerary garden would ever have been described as a *kepotaphion* we cannot say, but considerations of chronological distance (more than two hundred years separate the Moustapha Pasha tomb garden from the *kepotaphia* for lease at Canopus) and discontinuity of function perhaps make it unlikely. It is in any case apparent that the productive *kepotaphion* of late Ptolemaic and Roman times, as Alexandrian tomb architecture of all periods, was a local invention. Without direct precedent in earlier Hellenic or Egyptian practice, it was a product of the distinctive fusion of Greco-Egyptian culture, constrained topography, and metropolitan sprawl.⁵²

When the same type of productive tomb garden is next found at Alexandria in a Roman context, its revenue-producing capabilities are strictly tied to an obligation to care for the tomb.

The difficulty is to know what relation these Alexandrian *kepotaphia* bear to Roman-era *cepotaphia* in other parts of the empire. The Greek-speaking couple from Rome might seem to provide a hint of a direct connection between the two, since the epitaph for their son, which includes an elaborate prayer to Isis, suggests the possibility that they imported Alexandrian tomb architecture and terminology along with their religious beliefs directly from Egypt. The Roman fashion for borrowing Greek terminology to label spaces for cultured leisure took various forms, however, and followed various paths. Long before the first *cepotaphia* are attested on Roman soil, Q. Hortensius, the contemporary and rival of Cicero, maintained at his Laurentian estate a forest of more than 50 *iugera* (31 acres) stocked with game, which he called “in Thracian fashion” a *therotrophium* rather than by its traditional Latin name *leporium*.⁵³ Varro objected to the affectation of Hortensius' resort to a Greek term when a perfectly good Latin one would do and elsewhere derided contemporary voluptuaries, “who don't think they have a villa unless it rings with numerous Greek names, when they call the several places *procoetion* (anteroom), *palaestra* (exercise ground), *apodyterion* (dressing room), *peristylon* (colonnade), *ornithon* (aviary), *peripteros* (pergola), *oporothea* (fruit shed).”⁵⁴

Varro, when identifying enclosures for birds, employs the Greek *ornithon* and the Latin *aviarium* interchangeably, but describes his own aviary with the

Greek term.⁵⁵ His interlocutor Merula ("Blackbird") explains that originally there were two types of aviaries, the barnyard on the ground in which poultry fed, and the cotes or rooftop cages in which pigeons roosted, but that now they had changed name and grown to the size of villas as *ornithones*. Elsewhere Merula remarks that there were two types of *ornithon*, one for pleasure, as at Varro's estate outside Casinum, the other for profit, such as those that supplied the market.⁵⁶ Indiscriminate employment of the Greek term to describe both types of aviary had evidently eroded any original distinction between productive poultry pens and ornamental garden conceits. A few years later, the architect Vitruvius shows us a different pattern in explaining the difference between Greek *xystoi*, colonnades with covered tracks for athletes at *palaestrae*, and Roman *xysta*, open walkways among plantations or groves of plane trees, which the Greeks called *paradromides*.⁵⁷ In this case the Romans borrowed the Greek term but applied it to a feature that the Greeks knew by a different name.

Together the two examples provide a suggestive but complex model of how Roman *cepotaphia* might have related to the Alexandrian *kepotaphia* from which they took their name. Aviaries, a traditional Roman institution, swept up in the tide of late Republican enthusiasm for Hellenistic culture, underwent a transformation not only of name but of character, growing in scale and dividing into two types, one for pleasure, the other for profit. With wrestling grounds, a Greek institution planted in virgin Italian soil grew into a form fundamentally different from that of the original. The traditional Roman practice of decorating gravesites

with greenery perhaps suggests that tomb gardens of the late Republic and early Empire, like aviaries, may have been of two types, or perhaps of dual purpose, serving the ends of both productivity and amenity; but we cannot be certain which model comes closer to the truth. What features of design or purpose, if any, Roman-era *cepotaphia* shared with Alexandrian *kepotaphia* we cannot divine simply from their shared name.

Pomarium, Viridiarium, Paradeisos, Lucus

The question of identity is further complicated by the range of possible types of planting that might constitute a funerary garden and the variety of purposes the garden properties attached to tombs seem to have served. As close cousins of the *hortus* and the *cepotaphium* we must at times be prepared to recognize as tomb gardens the planted funerary areas designated in inscriptions and literature as *pomaria*, *viridiaria*, *paradeisoi*, and *luci*, each of which provides a nuance of color to the horticultural landscape.⁵⁸

Pomaria (orchards) stand at the productive end of the spectrum.⁵⁹ The advent of the intensive cultivation of fruit trees in the suburban periphery of Rome coincides with the emergence there of funerary gardens during the first century BC, when the demand for grain to feed the burgeoning urban populace grew beyond the capacity of local suppliers so that new sources of cereal crops were sought elsewhere.⁶⁰ We may readily imagine that many urban tomb owners during this period turned to cultivating the fertile plots within their tomb enclosures in the same profitable

fashion as the neighboring orchard growers (*pomarii*) and market gardeners (*vilici hortorum*). But explicit mention of tomb orchards in epitaphs does not occur until more than a century later, and we cannot assume that the motivation for planting fruit trees around tombs was ever purely, or even primarily, economic. The same holds for the vineyards that are sometimes mentioned explicitly in epitaphs from Rome and Asia Minor and which were often planted together with orchards.⁶¹ When Trimalchio imagines “all kinds of fruit trees and lots of vines” around his tomb, it is the satisfaction of knowing he will be surrounded by the trappings of productive amenity, rather than the purely practical desire to provide revenue for the upkeep of his monument, that inspires his vision.

Viridiaria, formal areas of greenery within a paved or enclosed area, had nothing to do with commerce.⁶² Inscriptions are uninformative about the character of these garden spaces, but literary and legal sources leave no doubt that *viridiaria* were designed for pleasure. The term first occurs (if we accept Lambinus’ plausible correction of a nonsensical paradox, *virid<ar>iorum*) in a letter of Cicero to Atticus of late 60 or early 59 BC, in which, while discussing villa architecture (as often with Atticus during this period), Cicero invokes the aesthetic criticism of one Cyrus, who disdained views of greenery (*virid<ar>iorum diaphaseis*) through wide apertures. The context leaves it uncertain whether formal landscaping or natural greenery is meant, but the appreciation of it is purely aesthetic. According to the rhetorician Musa, whom the philosopher Seneca heard at Rome during the first decades of the first century and who

(according to the Elder Seneca) was prone to bombast, *viridiaria* were “sculpted forests” (*caelatae silvae*).⁶³ Two hundred years later the jurist Ulpian named them first among the characteristic appurtenances of luxury estates and contrasted them explicitly with productive market gardens: “If the usufruct of an estate is left as a legacy, the usufructuary must not cut down fruit trees or demolish the farmhouse or do anything else to the detriment of the proprietor. If the estate should be one designed for pleasure (*praedium voluptuarium*), having pleasure gardens (*viridiaria*) or drives or pleasant and shady walkways beneath trees that do not bear fruit, the usufructuary must not destroy them or make, say, vegetable gardens (*hortos olitorios*) or anything else intended for profit.” Ulpian’s formulation is instructive in suggesting the contrasting cultural contexts of working garden orchards and ornamental planting, the one designed for profit, the other for pleasure: *viridiaria* stood opposite kitchen gardens in the scale of productivity. Elsewhere Ulpian mentions *viridiaria* and their specialized topiary gardeners as characteristic of the more elegant country villas.⁶⁴ Greenery labeled as *viridiaria* and associated with tombs should therefore be thought of as formally landscaped ornamental gardens, perhaps of the sort illustrated in a well-known marble plan, now in Urbino, of a large communal tomb garden outside of Rome (see below at Figure 8.10).

Paradeisoi belong to the same category of pleasure gardens. The term does not appear in Latin before the fourth century, when Lactantius defines a *paradeisos* as “a most abundant and pleasant garden,” but *paradeisoi* had enjoyed a long life in Greco-Roman culture ever since Xenophon

introduced the loan-word from Persian into Greek to describe the enclosed hunting parks of the Persian kings. Elsewhere Xenophon glosses the term with *kepos*, and it is clear from later Hellenistic and Roman authors that the closest native Greek term to describe the Persian phenomenon was *kepos*. What Greek writers generally meant by *paradeisos* was a sort of garden orchard or grove.⁶⁵ The most famous example, of course, the source of our “paradise,” is the Garden of Eden described in the Septuagint, in which grew “every tree that is pleasant to the sight and good for food” and where it pleased God to stroll in the evening breeze.⁶⁶ The most vivid description of what Romans meant when they described the garden areas attached to their tombs in this way, however, is provided by a Greek-speaking resident of

early Augustan Rome (possibly a doctor), Patro, who decorated his tomb, beside the Via Latina near the tomb of the Scipios, with frescoes depicting a stylized garden landscape and a marble epitaph in hexameter verse describing the surrounding property: “no brambles or prickly caltrops hem my tomb, no screeching bat flies around it, but all sorts of pleasing trees encircle my sarcophagus, glorying in their heavy fruited limbs. The clear warbling nightingale flits around, and the cicada emitting its lily-like tune from honey-sweet lips, and the subtly lisping swallow, and the chirping cricket pouring out from its breast its sweet song. Whatever lovely things there are for mortals, I, Patro, have provided them all so that I might have a pleasant place in Hades” (Figure 8.6).⁶⁷ The *paradesios* described by Patro and depicted

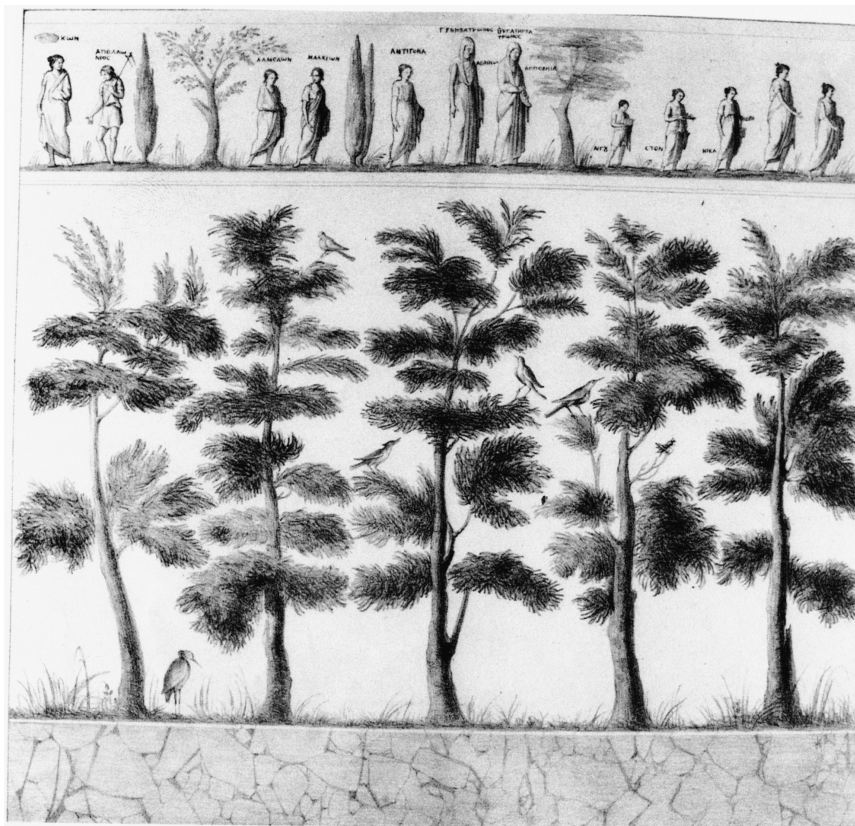


Figure 8.6 The Tomb of Patro, Via Latina, Rome, drawing after Secchi 1843, pl. 2.

in the garden painting, with luxuriant trees, birds, cicadas, and crickets filling the air with song, was no doubt realized, insofar as possible, by the planting of a tomb garden around the monument, which perhaps featured (if we follow the poem) an orchard of fruit trees or else (if we rely on the fresco) a grove or stand of evergreens.

Luci belong to a different realm altogether – that of the sacred. A *lucus* was a wooded place inhabited by a divinity and thus beyond the realm of the human; as such it evoked dread and inspired reverence.⁶⁸ In funerary contexts, the sanctity and serenity of sacred groves evoked thoughts of Elysium and the blessed life beyond. A funerary inscription found reused in the foundation of a house outside Casilinum (Capua) invites visitors (*hospites*) to find lodging (*hospitium*) at a “grove of the Decidii,” evidently a familial funerary grove and tomb complex. A secondary inscription identifies “this sacred grove (*lucus sacer*), surrounded by a wall, with its approaches” as separate from an adjoining field. A scattering of similar inscriptions from northern Italy, southern Spain, western Gaul, and on the Black Sea links groves with tombs or underworld deities, but none provides as clear an indication of their function as does a later source, the fourth-century commentator on Vergil, Servius. Explaining why in the *Aeneid*, upon the first anniversary of his father’s death, Aeneas adds a sacred grove to Anchises’ monument (*ac lucus sacer additur Anchiseo*) Servius writes: “[the Romans] used to attach woodlands to their tombs so that their souls would be in a pleasant place (*in amoenitate*) after life.” Later in the poem, in response to the Sibyl, and Aeneas seeking Anchises in the underworld, the hero-poet Musaeus

confirms that, in the land of the blessed, “we live among shady groves” (*lucis habitamus opacis*). This Vergilian conception of the underworld as a land of sacred groves finds subsequent expression in metrical epitaphs, but its original inspiration may have been more immediate.⁶⁹

During the years following Actium, while Vergil labored on his final poem, Caesar’s heir was engaged in laying out an extensive garden-grove park in the northern Campus Martius (Figure 8.7). Already by the middle of the first century BC Pompey had established an east/west orientation of the southern area of the campus north of the Circus Flaminius with his monumental theater and portico complex, which featured a grove of (probably) plane trees framing an axial view from its senate house at one end to the Temple of Venus Victrix at the other. To this Caesar had responded with plans for a massive enclosure, the *Saepta Iulia*, laid out according to a north/south alignment slightly to the left of perpendicular with respect to Pompey’s theater-portico complex and extending some 310 meters to the north. It remained for Octavian/Augustus to fulfill Caesar’s ambitious plans to aggrandize the city, not by building up the area, as Caesar had planned, but by opening it up to the public as a recreational park. The *Saepta* (completed by Augustus) along with the Pantheon dedicated by Agrippa in 27 BC and the large rectangular pool immediately to its west, fed by the new Aqua Virgo brought in from the east, established the southern limit of the area that Octavian, even before the decisive victory at Actium in 31 BC, set about developing into a new kind of semi-urban zone of recreational, sacred, and dynastic buildings, together with

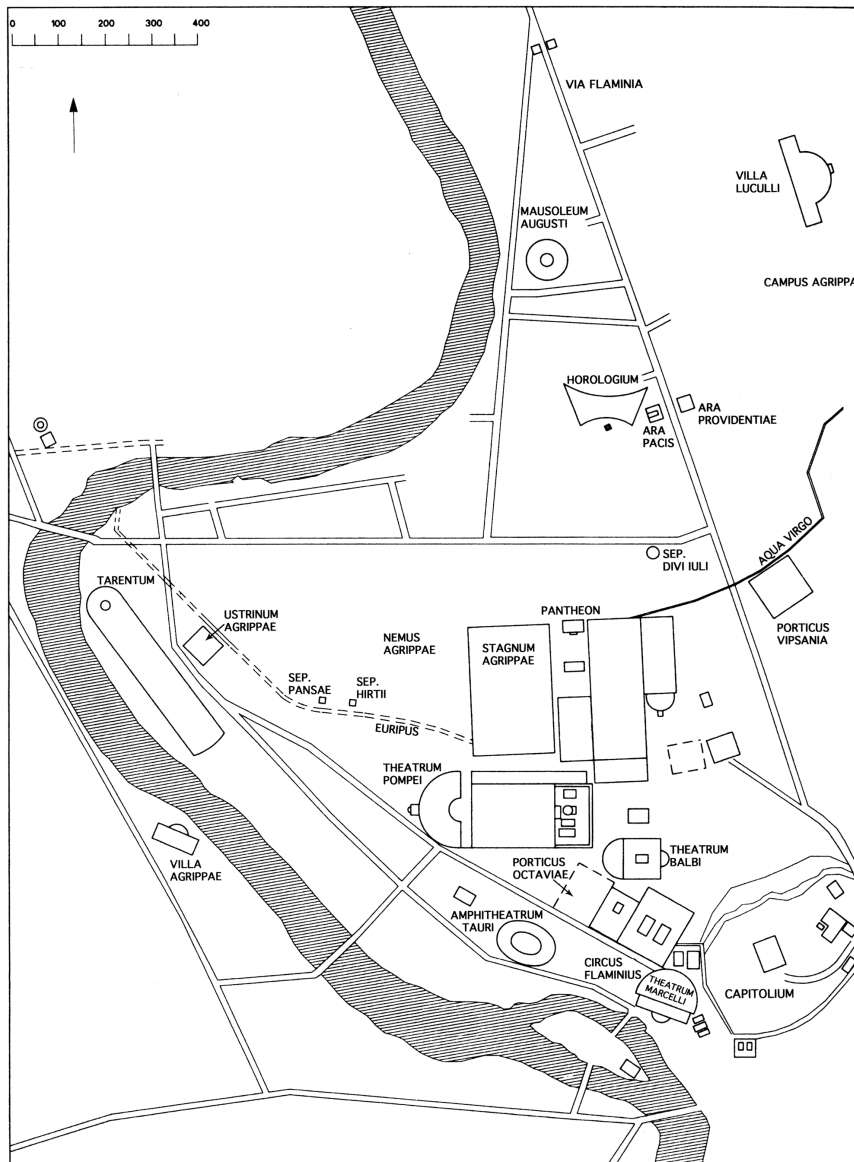


Figure 8.7 The northern Campus Martius in the time of Augustus, Rome, plan after Coarelli 1997, fig. 140.

open fields, gardens, and woodlands.⁷⁰ The first hint of his bold new vision came with the breaking of ground for a massive tomb mound at the narrow bottleneck of land between the Via Flaminia and a bend in the Tiber some 650 meters to the north. Template outlines of architectural elements from the Augustan Pantheon etched into the travertine forecourt of the Mausoleum suggest that the development of the intervening zone was conceived as a unified project from the outset, with

these two architecturally and conceptually balancing structures facing each other across an expanse of public parkland. Both, it seems, were circular edifices fronted by rectangular elements (the Mausoleum paving and the Pantheon *pronaos*). The temple, with statues of Agrippa and Augustus flanking the entrance on the front porch, housed an image of the deified Julius among other gods. The tomb, with the earthly accomplishments of Caesar's heir, an implicit justification for godhead,

inscribed on pillars flanking the entrance, eventually contained, among others of Caesar's descendants, the earthly remains of Agrippa and Augustus.

A contemporary visitor, Strabo, marveled at the seamless unity of the complex – the open grassy fields for exercise, dotted by art works and set against a backdrop of stunning riverine vistas, like a stage-painting (the Campus proper), juxtaposed with an area built up with porticoes, temples, theaters, and an amphitheater (the Circus Flaminius), the splendor of the whole bidding to render the rest of the city a mere by-product (*parergon*). "For this reason," he explains, "in the belief that this place was holiest of all (ἱεροπρεπέστατον) the Romans have erected in it the tombs of their most illustrious men and women. The most noteworthy is what is called the Mausoleum, a great mound near the river on a lofty foundation of white marble, thickly covered with evergreen trees to the very summit. It included: on top a bronze image of Augustus Caesar; beneath the mound the tombs of the emperor and his kinsmen and intimates; behind the mound a large grove (μέγα ἄλσος) with wonderful promenades; and round his crematorium in the middle of the plain a wall (this too of white marble) surrounded by a circular iron fence enclosing black poplars."⁷¹ Strabo was impressed by the sanctity of the region, owing to its association with the tombs of illustrious men and women who had been granted public burial in the area. Chief among them in his day were the imposing monuments of: Sulla (*in medio campo*); Caesar (the *tumulus Iuliae* or *Iuliorum*, originally built by Caesar for his daughter Julia, who died in 54 BC, in which his ashes also were housed); the two unfortunate

consuls of 43 BC, A. Hirtius and C. Vibius Pansa; and Agrippa (a cenotaph, since his ashes were interred in the Mausoleum). But the custom of privileged burial in the region went back as far as the regal period and Tarquinius Superbus, with a tradition that only kings could be buried there, thus providing a link between the idea of public burial and royal funerals in the region.⁷²

The funerary grove proper, according to Strabo, lay behind the Mausoleum to the north, in the triangular parcel of land defined at its apex by the intersection (at the modern Piazza del Popolo) of the Via Flaminia and a road that ran, on a line extending straight from the northwest corner of the pool of Agrippa, through the narrow strip of land between the Mausoleum and the river to the Via Flaminia some 500 meters to the north. But the area in front of the Mausoleum, too – all that lay in the outsized *subsecivum* defined by the Via Flaminia to the east, the course of the Aqua Virgo and the aligned façades of the Saepta, the Pantheon, and the pool of Agrippa to the south, and the straight line extending from the northwest corner of the pool of Agrippa to the modern Piazza del Popolo on the west – was conceived as part of a unified funerary garden complex incorporating tomb and *ustrinum* within a space eventually decorated (on an imperial scale) with such standard funerary garden furniture as an altar (of Peace), a sundial (the Horologium), a pool (the *stagnum Agrippae* with the adjacent woodland of Agrippa), and a shrine (the Pantheon), as well as the tomb of his father, Caesar, and "sister," Julia.⁷³ When the villa complex built by Lucullus on the western slope of the Pincian Hill overlooking the northern Campus Martius was subsequently enhanced during the Tiberian period by

the addition of a garden-theater complex crowned by a circular temple axially aligned with the Mausoleum of Augustus on the plain below, the owner's audacity in subsuming the emperor's dynastic monument within his private conceit was softened by the traditional association of suburban *horti* with garden and adjacent tomb garden, as seen, for example, on a more modest scale in the Villa of the Mosaic Columns at Pompeii, or nearly as grandly, with Hadrian's villa shrine to Antinous at Tivoli.⁷⁴

BUSINESS OR PLEASURE?

Roman funerary gardens, then, came in several shapes and sizes and were known by various names. As we have observed in passing, they also served a range of purposes, from the ornamental to the pragmatic. It remains to consider more closely their role in Roman social and economic life. Let us posit, at either end of a spectrum of functions, two basic models – the intensely productive kitchen garden of the Alexandrian Necropolis and the ornamental *viridarium* or *lucus* designed to provide a hallowed resting place for the dead and a pleasant venue for the living to commemorate them. Let us further recognize that the two goals of profit and pleasure often coexisted and that the scale of the enterprise might vary considerably, from the modest planting of a few trees in front of a tomb, as at Scafati, to the 20-acre spread (euphemistically styled *hortuli*) of a Roman knight at Parma, who intended the yield of 35 *iugera* to be consumed by his companions and their representatives at commemorative banquets at his monument.⁷⁵ When all due account is taken of

the range of variables observable in the funerary plantings we may identify as tomb gardens, it nonetheless remains likely that those who planted plots around tombs regarded them primarily as a source of revenue or as an expense, and it makes some difference for our understanding of their place in Roman funerary behavior and Roman garden culture where within this range we place them.

The development of the Roman *suburbium* during the period when tomb gardens first begin to appear in our literary and archaeological sources (the first half of the first century BC) is by now familiar. The demographic pressures produced by mass immigration into Rome during the last century of the Republic, combined with a rising fashion among the élite for elegant villas in the immediate environs of the city, shaped the pattern of real estate holdings in the suburban periphery into a variegated mosaic of private properties, with large tesserae of conspicuous consumption set into a background of numerous smaller tiles of intensive agricultural activity and commercial enterprise.⁷⁶ Within this mosaic the image of the productive tomb garden has seemed to fit nicely, with the space for the dead traditionally located in the suburban zone now first exploited productively to support the increasing cost of funerary display and to feed the growing populace of Rome. The *cepotaphium*, in particular, has been seen as the missing link which explains how, despite increasing economic pressures on the urban populace, the tradition of elite funerary splendor spread inexorably down the social scale and ultimately diffused itself throughout the Italian peninsula and beyond: it was “not just a funerary fashion but an example of a major

change in the economics of agricultural production," inasmuch as "the *cepotaphion* paid for itself." Indeed, "without the existing intensive exploitation of the land, the owner would not be likely to attempt to afford the tomb."⁷⁷ Did the advent of the tomb garden in the first century BC mark a major change in agricultural production in the suburban regions of Rome? Were productive gardens necessary to finance expenditure on tombs? Did the *cepotaphion* pay for itself?

That some tomb properties, including tomb gardens, produced revenue to support their own maintenance is clear.⁷⁸ More often, however, especially outside of Rome, revenue was devoted to annual celebrations at the gravesite, particularly during the *Parentalia* festival in February (especially the last day, February 21), on the days of violets (around the vernal equinox, at the beginning of spring) and roses (a moveable holiday between May and July, no doubt corresponding locally to the peak of the blooming period), and on the birthday of the deceased.⁷⁹ Other inscriptions mention commercial properties attached to the gardens: *meritoria* and *stabulae* (inns with lodging for men and horses), and especially *tabernae*, probably vending stalls put at the caretaker's disposal for the sale of produce from the garden to support upkeep of the tomb.⁸⁰ These assets presumably were incorporated explicitly in order to provide income. But none of these sources of revenue is ever imagined as financing the construction of the tomb itself. Revenue on that scale would probably have been beyond the income-producing capacities of all but the very largest tomb gardens.⁸¹

According to one informed estimate, the average size of the small productive

farms that supplied the capital during the first two centuries was between 5 and 10 *iugera* (somewhat less than 3 to 6 acres) – ten during the first century, five during the second.⁸² Of the some twenty-five attested plot sizes of tomb gardens (or probable tomb gardens) at Rome and elsewhere, only the foundation of Praeconius, the knight from Parma, exceeds the average size of first-century plots of 10 *iugera* (Table 8.1). Two inscriptions, both from Rome, record plots of approximately 10 *iugera*; one reports a plot of half that size. More than half (fourteen) register less than half a *iugerum* (about ¼ acre) in area. Of the largest plots, the exceptional size of the territory donated by Praeconius at Parma has already been remarked. A plot of 10 *iugera* of "unencumbered land" (*ager purus*, that is, not restricted by the law protecting tombs) at Rome belonging to a senatorial woman of the early Julio-Claudian era may have been devoted to cereal production rather than to horticulture and so must for now remain outside consideration. The second largest of these large properties, however, a little more than 10 *iugera* (almost 6 acres) in size, is known from an inscribed plan found at a cemetery known as Centocelle beside the Via Labicana east of Rome (Figure 8.8).

Two conjoining fragments of a cut marble slab preserve parts of an inscribed plan of a large rectangular area (546 × 524.5 Roman feet) bounded on two sides by a private road (labeled *via privata*) that branches off to intersect a public thoroughfare (*via pu[blica]*) extending some 1,783 Roman feet (about one third of a Roman mile) to some unknown point off the top of the smaller fragment (and possibly off the plan itself). What appears to be a series of quadrilateral tomb plots

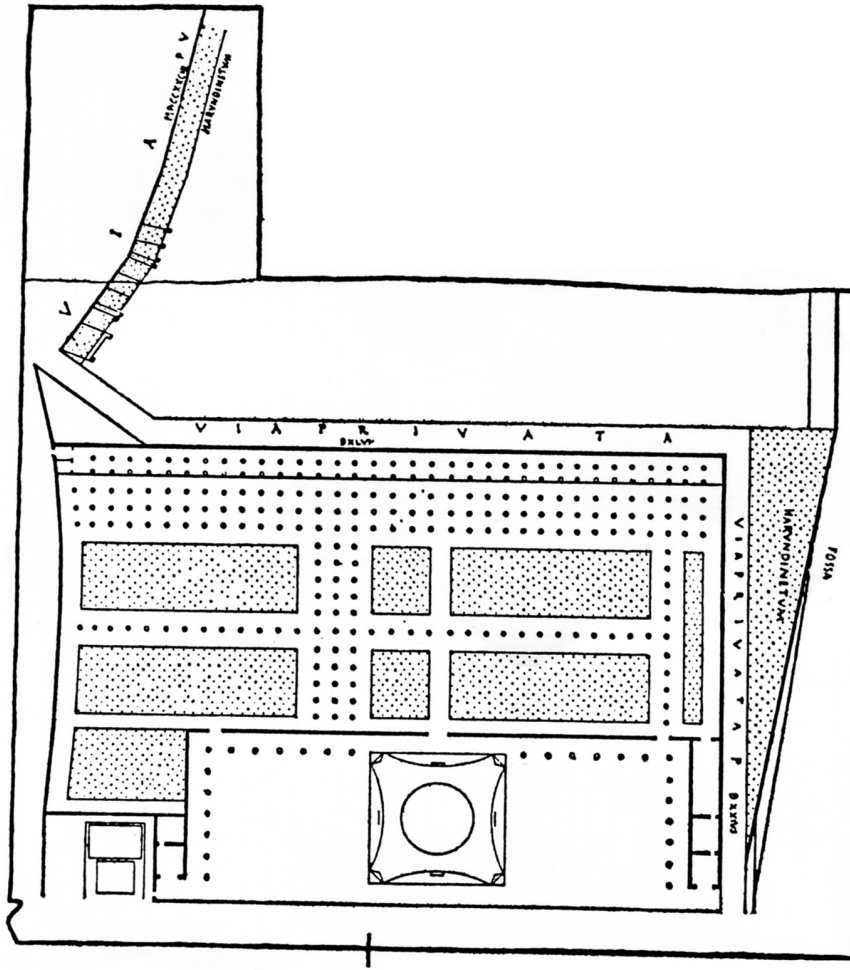


Figure 8.8 Roman tomb garden from the Centocelle cemetery beside the Via Labicana outside Rome, marble plan (CIL 6.29847), after Toynbee 1971, fig. 8.

beside the public road is marked off in a reed bed. A second reed bed occupying a triangular plot (a *subsecivum*) between the shorter length of private road and a ditch on the opposite side apparently extended in a narrow band along the right side of the plan.

The enclosed area was apparently accessible only by an entranceway at the upper left corner of the perimeter wall and by a narrow door next to an *aedicular* structure just outside the enclosure in the lower left of the plan. The lower third of the enclosure is dominated by the footprint of what appears to be a large tower-tomb (perhaps 15 meters square at the base) apparently similar in form to a

mausoleum near S. Maria Capua Vetere sketched by Pirro Ligorio in the sixteenth century and known as "La Conocchia" ("The Distaff").⁸³ The tower-tomb sits at the center of a rectangular courtyard bordered by a single row of dots (perhaps trees), interrupted by the rear wall of the tomb, which forms an ambulatory around the perimeter. The longest side of the courtyard, along the bottom of the plan, gives access to connecting service rooms aligned perpendicularly behind the shorter sides of the courtyard and, in the lower left, to the *aedicular* building just outside the entrance, perhaps the custodian's quarters. Behind the tomb and its courtyard eight rectangular plots marked

Table 8.1 Tomb garden plot sizes

- Gardens are in Rome except where otherwise indicated
- Entries enclosed in square brackets [] indicate possible tomb gardens
- The entry enclosed in curly brackets {} indicates an imaginary tomb garden
- SENATOR Eques *imperial freedman Augustalis*

Roman feet	= m ²	Garden	Appurtenances	Owner	(Location)	Reference	Date
± 10 × 10 (6 cubits ²)	± 10			Papas, son of Adrastos	Attouda, Caria	MAMA VI, 83	I–II
± 200	17.5	<i>cepotafius</i>		C. Laelius Epigonus et Sergia Silvina		CIL 6.21020	I ² –II
23 × 12 (276)	26.5	<i>viridiarium</i>		Pomitina C.l. Stratonice		CIL 6.7787	I
23 × 13 (299)	27	<i>cepotaphiolum</i>		Aur(elia?) Stratonica	(Via Tiburtina)	CIL 6.13386	II ² –III
13 × 24 (312)	28			C. Hostius C.l. Pamphilus, medicus		CIL 6.9583	50 BC
330 (<i>in circuitu</i>) 20 × 20 (400) [± 700]	30 36 61	<i>hypanpelus</i> <i>cepotafium</i>	<i>taberna, ascensus</i>	Valeria Athenais Peducaea Irene [–]us Iustinus vet(eranus) et Ennia Euhode	Tibur	CIL 14.3857 CIL 6.23901 AE 1980,105(B)]	I–II I ² –II III–IV
[15 × 70 (1,050) 43 × 60 (2,580) 81.5 × 43.5 (3,545) 65 × 70–6 (4,745)]	91 234 319 414	<i>cepotaphium</i> <i>hortus</i>	[<i>aedificia</i>]	anon. Annia Ispes anon. Claudia Octaviae divi Claudi f(iliae) lib. Peloris and Ti. Claudius Aug. lib. Eutychus		AE 1964, 86] AE 1973, 20 CIL 6.30073 CIL 6.9015 = 29847a	I–III? I ² –III I–III? I ²
[74.5 × 93.5 (6,966) 5/12 iugerum]	608 1,042 [< 0.25 acre]	<i>hic locus sive</i> <i>hortus</i>	<i>receptacula sub</i> <i>castello</i> anon.	Lusiana Iole	(Via Latina)	AE 1908, 35] CIL 6.29961	I–II I–II

Roman feet	= m ²	Garden	Appurtenances	Owner	(Location)		Date
[± 1/2 iugerum	1,259 [0.26 acre]		<i>piscina, puteal</i>	Ti. Claudius Celad[us]	Velitrae	<i>AE</i> 1925, 92]	I
{100 × 200 (20,000)	1,749 [0.40 acre]			* <i>Trimalchio</i> Puteoli?		Petronius 71.6}	mid I
240 × 98 (23,520)	2,057 [0.51 acre]	<i>hortulus sive pomarium</i>		Aquilia Caricni coniunx	Lanuvium	<i>CIL</i> 14.2139	II?
1 iugerum	2,518 [0.57 acre]	<i>rosarium cum viniola</i>	<i>piscina, horreum</i>	Lictoria Chaerusa	Capena	<i>CIL</i> 11.3895	I–II
± 2 iugera	5,036 [= 1.1 acres]	<i>hortulus</i>	... <i>taberna</i>	[...]us et Sozon, negotiantes vinari		<i>CIL</i> 6.9681	I–II
2 iugera	5,036 [= 1.1 acres]	<i>et pomarium</i>		several Vibii		<i>CIL</i> 6.11275f.	I–II
290 × [240] 2 5/12 iug.	6,103 [= 1.4 acres]	<i>horti</i>	<i>piscina</i>	C. Novius (mulieris) lib. Trophimus Ostia		<i>CIL</i> 14.396	I–II
[2 7/8 iug.	7,239 [= 1.6 acres]		<i>aedificium</i>	Fl(avia) T.f. Phoebe	Praeneste	<i>CIL</i> 14.3340]	II–III
280 × 360	9,072 [= 2 acres*]	<i>hortus</i>	<i>aedificium</i>	C. Nonius Minyas	(Via Ardeatina)	<i>CIL</i> 6.23090	I ² –II
± 5 iugera	12,590 [= 2.8 acres]	<i>hortus</i>	<i>taberna, aedificium</i>	T. <i>Flavius Aug. I. Alexander</i>		<i>CIL</i> 6.17992	75–125
± 8 iugera	20,144 [= 4.5 acres]	<i>hortus, ager</i>	<i>taberna</i>	Ti. Claudius Celad[us]	Velitrae	<i>AE</i> 1925, 87	I
[10 iugera	25,180 [= 5.7 acres]		<i>taberna</i>	COTTIA A. COTTI f. GALLA		<i>CIL</i> 6.31644]	?
546 × 524.5 [10 iug.]	25,782 [= 5.8 acres]		[<i>aedificia</i>]	anon. (Urbino plan)		<i>CIL</i> 6.29847	I–III?
35 iugera	88,130 [= 19.9 acres]	<i>hortulus</i>		C. Praeconius P.f. Ventilius Magnus	Parma	<i>AE</i> 1993, 713	75–125

with stippling and regularly disposed amid perfectly aligned single or triple rows of equidistant circular dots apparently represent flower beds marked off by regular rows of trees. A double row of dots separated from the others along the upper perimeter perhaps indicates a pergola or elevated walkway.⁸⁴

The Centocelle plan provides uniquely valuable, if ambiguous, evidence for the arrangement of the planting and the disposition of the monument within an early Imperial Roman tomb garden, but it can hardly be considered typical: not only is the tomb of a form and type not found elsewhere in the region of Rome (the only known parallel is at Capua), but also the formality of the planting and the apparent absence of commercial buildings, both suggesting a garden designed for amenity, seem incongruous with the size of the plot. In most of the inscriptions attesting larger tomb gardens, those greater than 1 *iugerum* (a little more than half an acre) in area, when appurtenances are mentioned they tend to be those associated with production and commerce – *tabernae*, *aedificia* (evidently work buildings rather than residences), fish tanks (*piscinae*, which might of course also serve an ornamental function), and, once, a storehouse (*horreum*) (Table 8.1). But these larger properties account for little more than a third of the funerary gardens of known size and no doubt a far smaller percentage of all tomb gardens, which probably fell more normally in the range of the bottom third of recorded plot sizes, those of less than 100 square meters.⁸⁵ In these smaller plots the portion of space occupied by the monument itself may have reduced considerably the area available for cultivation.

More characteristic, perhaps, in its apparent design to satisfy the goals of both productivity and amenity, is the sort of arrangement represented in our other surviving inscribed plan of a tomb and garden complex, which depicts a site of perhaps half a *iugerum* of area in all, of which no more than a third is devoted to cultivable space (Figure 8.9). An inscription carved along the top and bottom of the plaque identifies three plans at the center as depicting a tomb monument (*monumentum*) and a building for its upkeep (*aedificium*) that Claudia Peloris (a freedwoman of Octavia, the daughter of the deified Emperor Claudius) and Ti. Claudius Eutychus, an Imperial freedman and *procurator* of the emperors, left to their sisters and freedwomen and their descendants, sometime during the second half of the first century.⁸⁶ The plan on the right shows what seems to be a walled tomb enclosure with the monument built into the rear wall and a corridor leading off the left side of the forecourt to a stair descending perpendicularly to an underground burial chamber below. To the left a set of rooms with a courtyard opening onto a roughly rectangular walled area of 70 × 76 × 65 × 65 Roman feet, a little more than 410 square meters, presents the outline of a simple residence and garden. At the top is depicted another suite of rooms, evidently a second story and balcony, to be imagined superposed over the ground floor and courtyard below and to the left.

The ground floor of the residential building comprises a series of three workrooms opening off a central corridor, a two-room suite separately accessible from the front porch (perhaps the quarters of the gardener and overseer of the tomb), and a stairway to the upper floor. The upper

plants, especially vines, strung from a tree on one side to reeds on the other), and water supplies – cisterns or reservoirs, wells, and fountains – are among the most popular features mentioned.⁸⁸ This is the equipment of *otium*, and well accords with the image of how such gardens were used as presented, for example, by an anonymous first-century elegiac poem ascribed to Vergil, in which an inn-keeper (*copa*) boasts of her garden of “ornamental landscapes (*topia*) and leafy bowers (*kalybae*), wine ladles, roses, flutes, lyres, and pergolas cool with shady reeds.”⁸⁹ Similarly, when Roman authors referred to plantings around their tombs, they imagined amenity, adornment, and Elysian ease.⁹⁰ We have already encountered Trimalchio’s happy vision of a blessed afterlife in his house-tomb surrounded by “all kinds of fruit-trees and lots of vines.” Martial, lamenting the loss of a beloved boy buried beside the Via Labicana, contrasts the vain gift of a marble tombstone with the true monument of his sorrow (*nostri monumenta doloris*), “boxwood easily shaped and the vine’s dim shade and green meadows dewy with my tears.” Statius, in consoling Abascantus, the minister of the emperor Domitian, on the death of his wife Priscilla, whose embalmed body lay enshrined in a garden tomb at the head of the Via Appia surrounded by statues of attendants, couches, and banquets, imagines her going forth from the tomb – like Trimalchio’s monument, a virtual home (“A house it is, a house! Who would call it a gloomy grave?”) – to enter the land of the dead, her way paved “with garlands and Elysian flowers.”⁹¹

The idyllic reveries of a Martial or a Statius or a Trimalchio may be dismissed as the product of artistic imagination

and literary convention, but inscriptions, which in their recording of shops and buildings attached to the largest tomb gardens might be thought to provide a more candid picture of productive exploitation, are equally prone to sentimentalism. The ideal imagined by epitaphic poets, following their literary models, is not the brisk efficiency of Cato’s prosperous homestead but the romanticized pastoral landscape of Vergil’s *Eclogues*, alive with the hum of insects and brimming with nature’s bounty. Patro, for example, the Greek-speaking resident of Augustan Rome who built a familial tomb outside the Porta Capena during the last quarter of the first century BC, describes in such Arcadian terms (and with unusual clarity of intention) the *paradeisos* he attached to it.⁹² Over the next two centuries the conceit spread, along with other Roman epitaphic conventions, throughout the urbanized regions of the West. It seems to have enjoyed less popularity in Asia Minor and the East, but the idealized *locus* of the Roman geographical imagination remained in the heartland of classical Greece. According to an anonymous Latin epitaph set up at Cirta in North Africa sometime during the second or third century, “the Attic bee comes often to my tomb and, sated with thyme, leaves, dripping honey; here birds sing sweetly to me in verdant groves; here the Delian laurel blossoms near my tomb, and grapes hang like gold upon the vines.”⁹³ Attica and Delos were a long way from Numidia, but in the imagined afterlife their fauna and flora could be anywhere and everywhere. Even in less evocative texts, the sanctity of the burial site, the beauty of the flowers and greenery, and the tranquility of the venue are the principal themes emphasized.⁹⁴

Epitaphs may not be expected to register economic interests, but perpetual foundations and tomb garden inventories (the descriptive catalogs of furnishings and features of the landscape), concerned as they are with property, might be thought to reveal a greater concern with revenue. Even here, however, it is difficult to find texts that do not seem to point to amenity as a primary consideration. Indeed, pleasure in the idea of natural productivity is so closely intertwined in the Roman ideology of agriculture with a purely acquisitive interest in yield and profit that the same text can plausibly be taken as evidence for both.⁹⁵ The epitaph set up outside Capena for a fifteen-year-old girl by her husband and mother some time during the first or second century describes in scrupulous, if ambiguous, detail the plot attached to her tomb as “the rose garden with the small vineyard and the terrace at the end of the vineyard, and everything from the area of the pool and its channel as far as the open area and the open area with its buildings and the storehouse, and the reservoirs on the terrace, and from the area of the terrace up to the reedbed, including all the paths that are marked out – in all, one *iugerum*.”⁹⁶ The catalog conveys an evident air of pride in the property and perhaps implies a desire to protect it as described, but whether the appointments enumerated suggest horticultural productivity rather than placid contentment with the natural landscape is difficult to say.

At 1 *iugerum* in area the tomb garden outside Capena is in any case ten times the size of the largest attested *cepotaphium* in the neighborhood of Rome (Figure 8.9, Table 8.1). For tomb gardens of that size and smaller (less than 250 square meters in area), we gain a clear impression of the

nature and intended use from an inscription recording site improvements undertaken in AD 16 by two officials of a funerary *collegium* in the vicinity of the Centocelle cemetery beside the Via Labicana where the Urbino plan was found. The first part of the text is worth quoting in full:

T. T. Coccei Gaa and Patiens, quaestors (of the funerary *collegium*) for the third time, according to the will of the decurions set up the square dining table in the pavilion [or, less probably, dining room], the sideboard and base, the sundial, the fountain basin with supports, the marble well, the stucco-work above the wall of the middle path with the tiled roof, the little travertine column beneath the sundial, the projecting eaves in front of the portico, the scales and weights.

And, thanks to the kindness and generosity of their patron Titus, they undertook the clearing of the place behind the further perimeter wall and the transferring of the crematories from the furthest fence to there and the construction of a path there and a doorway.

And the same men with public money decorated those places that their patron Titus had granted to the decurions with the seeds of vines and fruits and flowers and all sorts of greenery, in the consulship of Sisenna Taurus and L. Scribonius Libo.

The text concludes with eight hexameters inviting passersby to see in the expenditure “the just observance of piety” and to recognize the relationship between cultivation of the site and just remembrance of the dead. Of those buried in the plot, it concludes, “all these places, while they lived, it pleased to protect well, and after death they hand on to posterity, lest

as inaccessible sepulchers they lie abandoned and unknown, but remain safe, if it is right to say so, for eternity.”⁹⁷ Ten years earlier, in AD 6, a freedman at Rome dedicated an entire garden-full of furniture to those of his fellow freedmen and freedwomen to whom their patron had granted cremation niches (*ollae*) in a familial monument beside the Via Latina. The inventory inscribed to commemorate his largesse lists “the pavilion with the covered walkway and the paved path, the stone table and base, the marble sideboard, the water tank with pipes and three bronze taps, the bronze lily fountain, three seats, three benches, two square tables, the maplewood table, the travertine steps in the ossuary, the vines and the greenery.”⁹⁸ Here the planting (*vites viridia*) appears a mere appendage to the furnishings, which evoke the leisure activities of the pleasure garden: strolls under leafy bowers, seated (and ambulatory) conversations, and *al fresco* dining.

Funerary gardens of this sort, found at Rome already at the beginning of the Imperial era, are occasionally attested subsequently in the first and second centuries elsewhere in Italy and southern Gaul, where Roman commemorative habits took root in fertile soil. In coastal Campania in particular, where the concept of the Alexandrian *cepotaphium* is likely first to have touched Italian shores and where Roman aristocrats paraded their refinement, the funerary fashion of pleasure gardens at tomb sites, like other commemorative practices, found its most vibrant expression in the hands of newly wealthy and upwardly mobile ex-slaves. Barred by law from holding civic office but aspiring to respectability among their freeborn peers, these outsiders patterned

their behavior on that of the municipal elite, whose own social sights, in turn, were calibrated according to the practices of the wealthy Romans who sojourned among them. Characteristically, at two steps removed from the cultural world to which they aspired, these socially ambitious freedmen, in their effort to leave no stone unturned, tended to overreach and thus to betray their insensitivity to the nuances of sophistication through an accumulation of detail. Trimalchio’s catalog of the appointments for his tomb, an artistic stroke in a brilliant satiric portrait, is no more revealing of the phenomenon than the real-life models that inspired it. In the perpetual foundation that C. Cominius Abascantus, like Trimalchio a freedman and *Augustalis*, set up at Misenum in AD 148 to provide for annual commemorative banquets at his garden tomb (*cepotaphium*), every authorized expenditure is minutely prescribed:

... and for the wrestlers at my garden tomb (*cepotaphium*) every year on the Parentalia, ten pairs in that place, for the winners 8 HS each, and for the defeated 4 HS each; for oil, 16 HS; for the home-born slaves, 60 HS; for the renter of the arena, 8 HS; for decorating the tomb with violets, 16 HS; likewise (for its decoration with) roses, 16 HS. I also desire that nard oil, one pound in weight and valued at 24 HS, be poured out over my remains; and that the town’s magistrates who will be in office at that time, and also the administrators of the *Augustales* who will then be in office, feast on that day in the dining hall which is above the tomb; and that 100 HS be spent (on this feast); and that 60 HS be spent on performing a sacrifice for me on that day; and from the remaining 140 HS (I desire) that money be

allocated for repair of the enclosure wall of this same garden tomb, as often as the need arises. Under these conditions, I am willing that 10,000 HS be given to the associated *Augustales* ...”⁹⁹

These annual expenses (420 sesterces), as well as any necessary repairs to the enclosure wall, were to be met by income deriving from the investment of the initial cash donation rather than from the tomb garden itself. Similarly, an anonymous Lingonian Gaul who equipped his tomb with orchards and a reservoir and appointed two freedmen over them to expend their revenue on maintaining the tomb provided also in his testament for three landscape gardeners (*topiarii*) and for annual dining at the gravesite – all to be supported independently by his grandson and subsequent heirs:

This building and these orchards and the reservoir are to be cared for according to the judgment of my freedmen Philadelphus and Verus, and if anything is damaged or destroyed, they are to be provided with the funds to repair or rebuild it. These places are to be cultivated by three landscape gardeners and their apprentices ... and each of the three is to receive 60 modii of wheat annually and 20 coins for clothing. My grandson Aquila and his heirs, moreover, shall be obliged to provide these things ... Moreover let all my freedmen and freedwomen, present and future, contribute one sesterce each annually, and let my grandson Aquila and his heirs provide [X] sesterces annually, from which each will provide food for himself to offer below in front of the memorial chamber ... and let them stay and linger there until they eat it.¹⁰⁰

In neither of these cases did the *cepotaphium* or tomb garden pay for itself; rather it provided an agreeable setting for commemorative funerary dining. No doubt revenue from the sale of produce or flowers helped to balance expenses, and it was surely pleasing to imagine banquetters consuming on the spot fruit and wine grown around one’s own monument, in the same way that it was gratifying to think of guests dining on fish harvested in one’s own ponds. Those who engaged in tomb-garden horticulture, however, like those who practiced pisciculture, generally seem not to have expected the cost of the enterprise to offset the expense.

Examples could be multiplied, to no purpose. Though suggestive, mere assemblages of epigraphic and literary testimony, weighed against each other, can never be probative of one view or the other when so much of the picture they represent is lost. Consideration of the broader economic and practical implications of the two models, however, seems to point away from regarding the Roman tomb garden as the engine that drove funerary expenditure among those of middling means during the early Empire, at first in the vicinity of Rome and subsequently out along the great network of roads that spread across Italy and the western Empire.¹⁰¹ Like other material forms of personal commemoration, *cepotaphia* and tomb gardens were an indulgence, part of the funerary freight that socially aspiring Romans willingly bore in their desire to outdo one another in competitive display. More importantly, tomb gardens presented a comforting aspect to those who imagined the dead as residing in the tomb and a congenial setting for the communal funerary meals that regularly

brought the living family together at the gravesite. They thus owed their popularity less to their economic than to their social potential, and their historical value to us lies less in their financial or environmental impact than in their cultural importance in reaffirming two of the ideological cornerstones of the Roman national identity – continuity of the family and productive exploitation of the land – at a time when the rapid expansion of Imperial society seemed increasingly to threaten the validity and viability of both.

APPENDIX

Roman Tomb Gardens around the Empire

Roman funerary gardens of all descriptions were primarily a Roman, and secondarily an Italian, phenomenon: more than 40 percent (65 of some 148) of the individually attested examples from all parts of the empire come from Rome; another 20 percent (27) were found throughout the rest of peninsular Italy, with a notable concentration in the central western regions of Latium and Campania.¹⁰² Slightly less than 20 percent (25) derive from the province of Asia, with the central and western regions of Phrygia and Lydia accounting for the majority (18). Elsewhere only the city of Salona in Dalmatia yields more than isolated examples.

Numbers, however, can be misleading. From the single attestation of one *cepotaphium* in Alexandria we would not naturally arrive at Strabo's picture of the western suburb of Necropolis teeming with garden tombs already in the time of Augustus. Nor could we anticipate the sort

of arrangement recorded during the same period at nearby Canopus, where three productive *kepotaphia* enclosed within a single perimeter wall were leased together for five years. The difficulty, as usual, derives from the nature of our evidence, which is incomplete, uneven, and biased in ways we can sometimes recognize but can rarely correct. Most Roman tomb gardens, for example, are attested (or rather can be identified) only by inscriptions; consequently patterns of frequency and use can only be traced through the filter of the epigraphic habit (the propensity to inscribe written records on durable materials), which may or may not coincide with the patterns of the behavior they attest. Many Roman tomb gardens may go unrecognized simply because it was not the fashion when and where they were used to record their use on stone. Conversely, the preponderance of evidence for the popularity of the phenomenon at Rome and in western Asia Minor is no doubt to some extent a reflection of the fact that those areas are among the most densely epigraphic regions in the ancient world (one of perhaps every four surviving Latin inscriptions comes from Rome).

At the same time, recognizing the broad contours of the Roman epigraphic habit enables us to put in perspective the striking paucity of evidence for tomb gardens in North Africa (only three examples in Numidia) – after Italy the region of the Roman Empire richest in Latin inscriptions – and the relative profusion of testimony from Aquitania, Belgica, and Lugdunensis in western Gaul, where the custom of inscribing records on stone never fully caught on. What is more, the nature of the testimony itself tends to favor certain types of information and to

obscure or to omit other types of equal interest to us. Had we more papyri from outside of Egypt, for example, we might have a better idea whether the sort of leasing arrangement attested at Canopus – and the physical configuration of properties it implies – was typical elsewhere or instead merely characteristic of the peculiar physical and cultural landscape of the territory around Roman Alexandria. As it is, we can only speculate whether the unique information the Berlin papyrus supplies is due to the unusual position of Egypt among Roman provinces or of papyri among ancient documentary sources. Finally, the absolute numbers involved – three testimonia each from Egypt, the Iberian peninsula, and North Africa, eight from all of Gaul, including Narbonensis – ought to leave us in no doubt about the precariousness of any form of statistical argument concerning popularity and use.¹⁰³ On top of all this, the vagaries of archaeological reporting (not all tomb gardens excavated have been – or can be – identified, and some that may have been recognized or suspected have no doubt gone unreported) and the limitations of investigative diligence (I have not attempted a properly systematic survey, province by province, of the vast archaeological literature) belie any pretense of comprehensiveness.

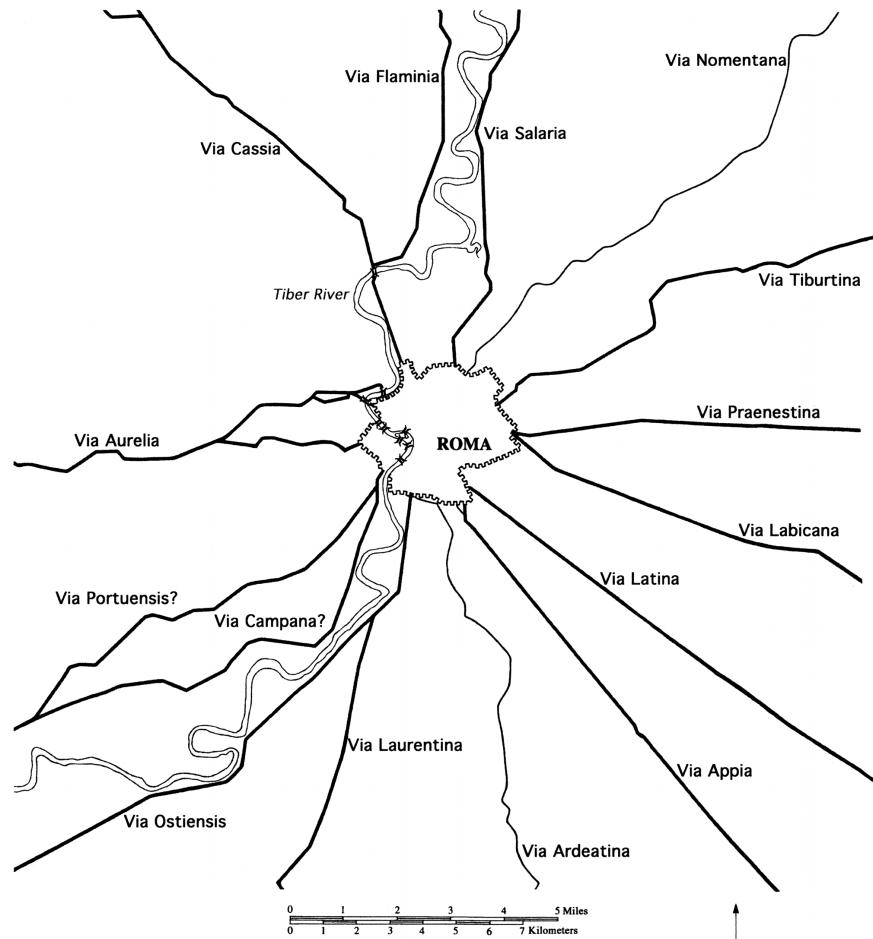
That said, an overview of the distribution of known tomb gardens around the empire may yet yield some valid indication of broad trends and can perhaps point to some significant patterns of concentration. It will be convenient to begin at the center, with Rome, and to venture outward, at first to Italy and then to the Roman provinces, beginning in the south with Africa and proceeding in a clockwise fashion around the empire. This will

bring us home, in a sense, at the end, to the birthplace of the *cepotaphium*, in Egypt and Alexandria.

Radiating from the city like spokes, the highways of Rome articulated the surrounding landscape into a series of discrete burial zones, all broadly similar but each marked also by individual characteristics and conveying a distinctive aspect (Figure 8.10). The familiar image of the street of tombs, though it may suitably characterize the Via Flaminia beyond the Milvian Bridge or the Via Appia after the third mile, is inapt for the networks of paths and streets that knitted together the suburban fabric in certain regions – between the Via Salaria and the Via Nomentana, between the Via Praenestina and the Via Labicana, and between the Via Appia and the Via Latina – into a patchwork of cemeteries fanning out from the city wall. In these crowded zones, a monumental façade was less important than a well-defined perimeter, but in what ways, if any, the tomb gardens located in these districts differed in configuration or use from those planted in more open areas farther away from the city we cannot say.

Of the sixty-three inscriptions, tomb paintings, and sculpted reliefs from Rome identifying tomb gardens, nearly two-thirds (forty) are of unknown provenance, and only three of the others – from the tomb complexes of Patro and Claudia Semne beside the Via Appia and from the villa site of the monument of the Haterii beside the Via Labicana – were discovered *in situ*. Another half dozen were found in contexts not likely to be far removed from their original locations, but most of the others were manifestly displaced, possibly some distance from the monuments where they were first displayed. With all

Figure 8.10 The radial roads of Rome, plan. Drawn by L. Anderson-Zhu.



due caution, then, we may observe an apparent concentration of tomb gardens, including several of the most elaborate specimens, in the burial zone to the southeast of the city outlined by the Via Labicana and the Via Appia and bisected by the Via Latina: thirteen of the twenty-two examples of known provenance come from that zone. A broader arc of use can be traced from the Via Nomentana in the northeast to the Via Ostiensis in the south, but west of the Tiber only a single example found reused in the catacombs of S. Calepodio beside the Via Aurelia and quite possibly deriving from elsewhere represents the group. To the north, we know of no tomb gardens beside the Via Cassia/Flaminia and the Via Salaria, perhaps because the

natural salt pans on the right bank of the Tiber that gave the Salaria its name and the low-quality claybeds in the region that furnished the bricks known as *opus Salarese* made the soil in that district less suitable for planting.¹⁰⁴

In the northeast quadrant, the evidence is scarce and the picture spotty. A single inscription found immured in the mausoleum of S. Costanza at the third milestone of the Via Nomentana attests a *cepotaphium* with a garden of specified but unknown dimensions and apparently names the Via Nomentana explicitly. Two other *cepotaphia* are similarly attested in epitaphs reused in the Christian catacombs of S. Cyriaca to the right of the Via Tiburtina a little more than a kilometer from the

Porta Esquilina, but neither can be presumed to have originated in that location. From beside the Via Praenestina come two texts that provide more helpful indications: one, found near (and apparently deriving from) a circular tomb at the first mile from the Porta Maggiore, records “a building with tomb garden (*cepotaphium*) and monument (*memoria*)” built up from the ground; the other, found out of place near Tor Sapienza a little more than 4 miles from the city walls, provides the dimensions of a larger tomb plot “with a garden enclosed by a wall eighty-one and a half feet in frontage, forty-three and a half feet in depth” (some 320 m² in area).

When we turn to the southeast quarter, we enter the area richest in information. Near the third milestone of the Via Labicana, at the heart of the vast imperial property known by the topographical designation *ad duas lauros*, the archaeological zone of the Centocelle cemetery and the catacombs of Marcellinus and Peter has yielded both the most informative representation of a tomb garden (the inscribed plan now in the Palazzo Ducale in Urbino) and the richest verbal description of one (the record made by two quaestors of a funerary *collegium* in 16 BC of furnishings and improvements to a plot granted them by their patron, as well as a third text attesting a *cepotaphium* of a woman). Nearby in the seventeenth century was found the large marble slab recording the remarkable foundation grant made by T. Flavius Syntrophus of “the Epagathian Daduchian gardens on the Via Labic[ana near the third milestone] on the left for those leaving the city, as they have been equipped, with their building and the vineyard enclosed by a wall.” A mile farther on was the villa and burial

monument of the Haterii, with its famous self-referential sculpted reliefs depicting the temple tomb itself surrounded by an enclosed garden featuring an ornamental pavilion. It was somewhere beside the Via Labicana that Martial, in the first book of his miscellaneous epigrams (published in AD 85), imagined a more idyllic, less ornate, garden setting for the final resting place of his beloved slave boy Alcimius. Evidently the zone was favored early (the *collegium* inscription of 16 BC is one of our oldest attesting a tomb garden) and, to judge from the remaining evidence, flourished during the Flavian and Trajanic periods.

Farther to the south, the Via Latina may have been especially popular with the Greek (and Hellenophile) community of Rome – two of the three tomb gardens known to have been located beside it were dedicated in Greek – but the poverty of the testimony and the difference in date between the two texts make it impossible to speak of a trend. Sometime in the Augustan age, less than a mile from the Porta Capena near the tomb of the Scipios (itself on a cross-street between the Via Latina and the Via Appia), the Greek-speaking Patro dedicated a tomb and surrounding *paradeisos* to his family. Much later, sometime probably in the second or early third century, a Greek family devoted to the cult of Isis planted a memorial tomb garden for their young son, themselves, and their household somewhere in the region. A plaque found near the fourth milestone identifying the property adjoining a tomb as “this place or garden of about five twelfths of a *iugerum* enclosed with a wall,” if originally displayed there, would provide a rare and valuable indication of the size of

a tomb garden at a certain distance from the city: at a little less than a quarter of an acre, it falls around the middle of the range of mid-sized gardens of recorded area (Table 8.1).

The best-known “street of tombs” in the Roman world not surprisingly supplies our most abundant information also about the suburban tomb gardens located beside it: each of the inscriptions attesting a garden, and in several cases the tomb complexes associated with them, provides an unusually detailed picture of the funerary milieu. Along the first stretch of the Via Appia, a few hundred meters outside the Porta Capena, the curator of a familial *columbarium* of freedmen of a C. Iulius in AD 6 equipped an ample tomb garden with furniture and amenities for commemorative dining amidst vines and greenery. Near the second mile of the Valle della Caffarella between the Via Appia and the banks of the Almo lay the vast property of Annia Regilla, the wife of Herodes Atticus, who, following her death during pregnancy around AD 160, in an extravagant display of grief (or contrition: he was suspected of complicity in her demise) dedicated to her memory the entire domain, including wheat fields, vineyards, olive groves, pastures, and a memorial grove. A few decades earlier (around the year AD 130) and a little farther on, between the second and third mile, a freedman of the emperor Trajan commemorated his dead wife, Claudia Semne, with a rectangular tomb monument surrounded by an enclosed garden in which were “pavilions, a little vineyard, a well, and shrines in which statues of Claudia in the likeness of the gods” were housed; the sculptural decoration found *in situ* at the site fully bears out the verbal description

of private deification in the epitaph. Just past the third milestone, near the tomb of Caecilia Metella, lay the underground tomb complex of Manlia Felicitas “in these gardens (or ‘on this estate’) of the Manlii” (*in his hortis Manlianis*), and somewhere in the region was found also the dedication of a *cepotaphium* by an Imperial freedman, Aur(elius) Inachus, some time (probably) in the early decades of the third century.

Proceeding west from the Via Appia, we leave the zone of greatest concentration (of evidence, at least). The two inscriptions attesting tomb gardens along the Via Ardeatina suggest a less intensive funerary use of the suburban landscape and, perhaps, somewhat larger properties. An epitaph found near the church of S. Balbina between the first and second mile and set up by a senior centurion for himself and his wife, probably in the late second or early third century, around the time that Caracalla built his huge bath complex in the region, separates a *cepotaphium* from his house, which he calls a *domus* rather than *horti*, since the area at that time, though outside the *pomerium* and thus still legitimately open for burials, was evidently no longer considered part of the suburban periphery. Earlier, some time in the first or second century, in the region of the catacombs of Domitilla near the intersection of the Via Ardeatina and the later Via delle Sette Chiese, a certain C. Nonius Minyas attached to his tomb a large garden (almost two acres in area) with service buildings and provided access to it through a neighboring estate.

Farther to the west, evidence of tomb gardens falls off precipitously. Somewhere beside the Via Laurentina or Ostiensis, from which the Via delle Sette Chiese ran east to the Via Appia, a tenant farmer of

a kitchen garden owned by an alimentary foundation commemorated his successful petition in the year AD 227 to be granted a small section of the plot for his monument; and farther to the north, on the other side of the Tiber, a reused epitaph found in the catacombs of S. Calepodio identifies a *cepota[phium]*.

If the twenty-three tomb gardens of more or less certain location on the outskirts of Rome are representative in their geographical distribution of the forty of unknown urban provenance, then we should expect the majority of the latter to derive from the southeastern zone of the suburban landscape between the Via Praenestina and the Via Appia or, more broadly, from the eastern side of the city between the Via Tiburtina and the Via Ardeatina.¹⁰⁵ There is some reason to suspect, however, that the northern and southern areas east of the Tiber may be underrepresented in our sample: one inscription of uncertain urban origin preserved in a modern villa outside the Porta Salaria and attesting a tomb garden flanked by three shops may have come from beside the Via Salaria or Via Nomentana, and two others were found south of the city, near S. Paolo fuori le Mura (Aelia Antigone) and somewhere beside the modern Via del Mare (Cloelia Tyche), in the zone traversed by the Via Ostiensis. None of our evidence, however, suggests that tomb gardens were ever popular in the regions west of the Tiber. Why this should be so is not immediately obvious, but the pattern of concentration and exclusion is consistent with other funerary forms that depend upon the geophysical characteristics of the terrain.¹⁰⁶

Outside of Rome, the rest of Latium reveals no particular clustering but rather a more or less even (if thin) distribution

of examples that run in an arc from east of the city at Tibur, where the emperor Hadrian's garden memorial for his beloved Antinous has recently been identified and where a funerary inscription of the first or second century describes in detail a small vineyard with shop and staircase attached to a familial tomb; to Velitrae, south of Rome, where an early Imperial building contractor furnished his tomb beside the Via Appia with half a field of 8 *iugera* (a little less than 1 hectare), a shop, and garden; to Lanuvium, where a tomb of (probably) the second century was equipped with an enclosed garden or orchard about one quarter of a hectare in area; to Ostia at the mouth of the Tiber, where a *sevir Augustalis* devoted to the upkeep of his monument "the entire dry area" of a large and evidently marshy garden, with a pool, and where a freedwoman, Iunia Libertas, granted to her freedmen and freedwomen the usufruct of a productive property complex comprising gardens, buildings, and shops surrounded by a single perimeter wall, on condition that part of the proceeds be devoted to annual funerary celebrations in her memory. What stands out in this group is the penchant for specifying the size of the tomb garden property, a practice that seems to have been more characteristic of the areas around Rome than of the city itself and is even less common in other parts of Italy and the provinces.¹⁰⁷

North of Rome, with the exception of Venetia, where the important cities of Patavium (Padua and Aquileia) and the town of Altinum each offer a single example of a tomb garden from the early Imperial period (and the inscriptions from Aquileia and Altinum supply interesting details about the properties), the

other regions of the peninsula provide only scattered evidence of the phenomenon: an inscription found in the territory of Capena near Mt. Soracte in southern Etruria records in detail the appurtenances of a mid-sized tomb garden (slightly less than one quarter of a hectare) of the first or second century; outside of Parma in Gallia Cispadana a Roman knight bequeathed a huge "garden" nearly 8 hectares in area some time in the late first or second century; and in the Piedmont region of Liguria a freedman ointment dealer helpfully explained in his epitaph the purpose of such funerary arrangements: "these gardens, as great and excellent as they are, (will) serve my ashes, for I shall appoint caretakers to dine on the proceeds from them on my birthday and on the day of roses, in perpetuity."

South of Latium the culturally fertile crescent of the Campanian coast around the Bay of Naples is comparatively rich in testimony, indeed is second only to Rome in its concentration of evidence for tomb gardens and *cepotaphia*. At Pompeii, where the suburban burial grounds buried by Vesuvius in AD 79 are unusually well preserved, G. Spano imagined gardens in many of the enclosed areas around tombs and in 1910 planted several accordingly with roses, anemones, and myrtle, but only at the Villa of the Mosaic Columns, excavated by Maiuri outside the Herculæum Gate in the 1940s, was unequivocal (and valuable) evidence found of a tomb garden and shops attached to a suburban villa property and it was only in the 1960s, at Scafati, that Jashemski was able to recover the root cavities of a group of trees planted systematically around a rural tomb and *ustrinum* to mark their location. Misenum yields two examples, one the record of a

veteran sailor of the Misene fleet who forbade any but his immediate family to be buried in his "monument or orchard," the other a detailed record, consular-dated in AD 148, of the provisions made by an *Augustalis* for annual commemorative rights at his *cepotaphium*. Puteoli adds another three – a *cepotaphium* of the latter second or third century described as an "eternal home," and two more elaborate productive complexes of first- or second-century date, one comprising a shop and lodging and structures below them, along with a little garden plot and crematory, the other an enclosed orchard with shop and work buildings – thus bringing the total for the coastal area to seven certain examples or twelve possible ones, if we include the hypothetical tomb gardens postulated in the enclosed areas around certain tombs outside Pompeii.

Inland, near the border of Campania and Samnium, a large marble slab found at Casilinum invited visitors to find "lodging" (i.e., burial) in a funerary grove "of the Decidii" outside ancient Capua, and at Beneventum in Samnium a testator bequeathed to his heirs a garden, shop, and loft, evidently for the upkeep of a familial tomb. Across the peninsula on the Adriatic coast, in the territory of Barium (Bari), a bilingual epitaph unearthed in 1983 near Spinazzola identifies the property of a freedman doctor as farmland, house, garden, and tomb – a conventional formula in both Greek and Latin and one attested also at Thessalonica and Rome. As for the more southern parts of the peninsula (Lucania, including Magna Graecia, Calabria, and Bruttium), Sicily, and its peripheral islands, it is easier to believe that we have no evidence of tomb gardens than that there were no tomb gardens at

all, but it seems clear that the fashion was less popular there and in northern Italy than in the central western regions of the peninsula, particularly around the Bay of Naples and in Latium.

Leaving Italy from the toe of the boot and Sicily and proceeding on our clockwise tour around the empire from Roman North Africa, we pause briefly in Numidia – where a one-verse epitaph from Cirta describes in idyllic terms the garden setting of the monument it decorated; another from Cillium imagines a deceased patriarch enjoying in the afterlife the vines and irrigated grove he planted on the site of his tomb; and an inscription found near Thamugadi (Timgad) identifies a *cepotaphium* – before returning to Europe via the Iberian peninsula, where Baetica, Lusitania, and Tarraconensis each offers a single example. A limestone block found near La Alameda in Baetica records the dedication of a funerary grove of the late first or early second century; the epitaph of a standard bearer of the Second Legion from Olisipo in Lusitania, though it does not mention a garden explicitly, implies the presence of one in registering a pavilion and “circumvallation” (a military term) around his tomb; and an inscription of the late first or early second century found near Saguntum in Tarraconensis records the epitaph of a husband and wife, who purchased for their monument a vaulted place with walls, baths (a notable amenity at a tomb), and gardens. Apart from the possible geographical significance of the preservation of our only three attestations of tomb gardens from North Africa in Numidia, the paucity of the evidence in these provinces allows only the most tentative and general conclusions to be drawn. The record

of a funerary grove (rather than garden) in Baetica, the idiosyncratic reference at Olisipo to an enclosing “circumvallation,” and the equipping of a tomb with baths at Saguntum at least suggest that Iberian followers of the Roman funerary fashion did not slavishly copy the trends prevailing at the capital but adapted the custom according to local or personal tastes.

The testimony from Gaul is more plentiful: a pair of witnesses each in Aquitania and Belgica, one in Lugdunensis, and three in Narbonensis. No other European province furnishes as much evidence for the popularity of tomb gardens. Here, as in Iberia, it is possible to observe a variety of local adaptations of Roman custom, as well as a particular penchant for indicating that proceeds from a funerary garden of specified size are to be spent on annual libations of wine or commemorative meals at the tomb site. At Die in Narbonensis and Briord in Aquitania, the area of the plot is indicated by the Gallic unit of the *arepennis* (about $\frac{1}{4}$ acre); at Leiden in Lugdunensis libations are prescribed on the birthday of the deceased and the Roman *Parentalia* (both conventional dates) and on July 17, possibly in conjunction with the thinning of a funerary grove in which the epitaph was dedicated. Similarly in Belgica, at Géligneux near Ain, a caretaker of the sailors of the Rhône dedicated (in mixed Gaulish Celtic and Latin) a small temple tomb, “with a vineyard and walls to perfect it and to support its upkeep and to provide for the serving of a dinner worth 2 *denarii* every thirty days in perpetuity.” From the same region, at Andematunnum (Langres), a famous inscription preserving the testament of a Lingonian Gaul records that he furnished his elaborate mausoleum with

an orchard and reservoir and three landscape gardeners and provided for annual banquets at the tomb site. Near Modène (Le Vaucluse) in Narbonensis ongoing excavations at an early Imperial villa site have recently revealed a small cemetery comprising sixteen tombs enclosed within a quadrangular perimeter of planting trenches, with the interior divided by a series of parallel trenches extending perpendicularly off one of the longer sides. Symmetrical plantings are occasionally found in Roman tomb gardens both humble and grand, as the modest tomb garden at Scafati and the much more elaborate specimen represented in the plan from Urbino attest, but whether or not the sort of arrangement revealed here was characteristic of organized garden cemeteries in general is impossible to say. How the plot may have been planted is perhaps indicated by the epitaph of a freedman of the Flavian period from Nemausus (Nîmes), who surrounded his mausoleum with trees, vines, and roses. Finally, an epitaph from Saintes in Aquitania, now lost, evidently recorded the equipping of a tomb "with a rather large garden, as walled around and marked out, with its sacred places, approaches, and monuments."

One searches hard for any signs of tomb gardens in Britain: a generous interpretation will recognize the representation of one only, in a military tombstone from Chester that depicts a row of three gabled buildings with stylized trees or shrubs planted in front of the two at the sides.

Returning to the mainland, we bypass Germany, Rhaetia, and Noricum, where evidence for tomb gardens has yet to be found, and move to the head of the Balkan peninsula, where Pannonia offers a simple example in the reference to a funerary

viridiarium in an epitaph unearthed near Scarbantia and a much more elaborate specimen of the third or fourth century in an epitaph set up by a senior equestrian official on his villa estate near Savaria (Szombathely), in which he asks "whoever will be master of this house and garden after me [to] gather the nearby roses for me [and] put out for me the white lilies which the green garden will grow." Farther down the peninsula, along the coast of the Adriatic, at Salona in Dalmatia, a rock-cut epitaph marks the spot where in the late second or third century a man made a fishpond or pool in the funerary garden of his wife; another epitaph identifies the location of a burial place "among the sarcophagi in the middle in the garden, near the road, overlooking the old (?) courtyard (or seed bed)"; and a third records the donation of a sarcophagus "in the garden of Metrodorus," a place plausibly identified with a walled cemetery 100 meters outside the city gate comprising a number of individual familial plots articulated by dividing walls within an area surrounded by a perimeter of massive masonry blocks.

Some 400 miles east of Salona, at Romula (Resça) in southern Dacia, a verse epitaph unearthed in 1954 describes how, some time in the second or third century, the wife of a local *decurion* built a tomb for her husband "amidst the vines and shrubbery and the lush grass, where deep shade from an overhanging branch supplies the greenery." Somewhat more than 200 miles to the east and slightly north, in Moesia, at Tomis on the Black Sea, where Ovid endured a miserable exile, a veteran of the Legio XIII Gemina dedicated a tomb and funerary grove to himself and his family sometime probably in the second

century. Farther south, at Thessalonica in Macedonia, a limestone sarcophagus set up in a tomb complex in AD 147 by a local town counselor characterizes the area as comprising “a field, house, garden, and burial place” in which were situated various sarcophagi and statues, as well as a cinerary urn and another burial place. From Roman Greece we have only one witness, at Chaeronea in Boeotia (part of Roman Achaëa), where sometime (probably) in the first or second century a man with a Greek-style name dedicated to his family a tomb with cistern and garden attached.

Outside of Rome the area richest in testimony for tomb gardens is the Roman province of Asia, where twenty-five inscriptions register specimens of varying complexity and date. Most belong to the first and second centuries, but some are as late as the fifth or sixth century, and the custom can be traced both forward and backward in time, beyond the chronological boundaries of the Roman period. The peak of the phenomenon, however, coincided with the Roman presence in the region and centered on the western central areas of the province. At Smyrna on the Ionian coast a reused marble block preserves in its secondary text one of the latest Roman (or early Byzantine) instances in the record of a donation of a funerary garden by a notary, Ioannes, sometime in the later fourth or fifth century. Lydia offers seven examples in seven different cities or regions, from Nakrason and Thyateira near the border with Mysia in the north, where a long and detailed testament of first-century date made by a certain Epikrates provides unparalleled information about an extensive productive property intended to support a

commemorative foundation, to Ephesus in the south, where a reused inscription records an epitaph of (probably) the third century identifying an orchard (named with the Roman term, *pomarium*, transliterated) with sarcophagi and (it seems) a pavilion, and inland as far as the upper Cayster River valley, where a fragmentary Roman-style epitaph found near Thyaira prohibits alienation of a tomb or the garden and crematory in front of it.

To the south, a modest marble slab found immured in a house at Attouda in Caria, on the border with Phrygia, records an equally modest tomb garden of less than 10 square meters – the smallest one for which a size is reported – and a broken tombstone found at Myra (one of two attesting a tomb garden in Lycia) charges certain persons with “not living elsewhere but staying in the tomb complex (*heroon*) and themselves taking care of it completely,” in return for which “they are to have use of the walled garden and the buildings in it, two underground rooms, and the two corresponding rooms on the ground floor.” Moving inland, the oldest of three inscriptions attesting tomb gardens in different towns in Pisidia (and one of the earliest from Roman Asia Minor), datable to the early Julio-Claudian period, records also the most elaborate specimen from the region: the leading member of a local family, who served as ambassador to Germanicus Caesar during the early years of Tiberius’ reign, describes an extensive funerary property comprising, along with the grave monument, colonnades, “the things provided around the tomb,” gardens, stalls (?), workshops, and a permanent attendant to care for the complex. The core of Roman Asia, Phrygia, provides nine or ten examples – six, ranging in date

from the second to the fifth or sixth century, from the flourishing western city of Hierapolis and one each from the towns of Akmonia, Appola, Temenouthyrae, and possibly Diokleia.

Farther inland, at the heart of the Anatolian peninsula, the evidence falls off dramatically, but not entirely. Galatia, Lycaonia (both part of the Roman province of Galatia), and Cappadocia offer one attestation each, at Juliopolis, Sidamaria, and Nazianzus, respectively.

Considered as a whole, the inscriptional evidence for tomb gardens in Asia Minor reveals many of the same features observed at Rome – reference to the garden itself metonymically by mention of its perimeter wall (*peribolos*), emphasis on the connection between revenue derived from the property and commemorative celebrations at the tomb, and prohibitions against alienation – as well as a somewhat more distinctive tendency to mention explicitly a caretaker assigned to oversee the property (as Trimalchio had instructed), which perhaps reflects a difference in epigraphic rather than actual practice (Myra, Apollonia, Hierapolis).

Elsewhere on the continent of Asia we have no evidence of Roman tomb gardens in the desert provinces and the Caucasus – an absence not entirely to be explained by a relative paucity of epigraphic evidence and an inhospitable climate and poor soil conditions throughout much of the region. We should not forget the Persian origin of the *paradeisos*, for example, in Avestan *pairi-daeza* (a walled and irrigated plantation), and its connection with the Hellenistic and, ultimately,

Roman concept of the ornamental tomb garden as an idyllic final resting place as at the tomb of Patro in Rome and, explicitly, in an inscription from Vasada in Pisidia. Rather, in these least Romanized provinces – some held only temporarily, others with deeply entrenched local burial traditions adopted even by native Romans when they died and were laid to rest in the region – the custom never caught on.

Returning to Africa, we end in Egypt, where the uniquely informative papyrus from Canopus and the later Roman-style epitaph from Ibrahimieh at Alexandria have already been discussed. To this evidence we have only to add a solitary reference to *kepotaphia* in the so-called Gnomon of the Idios Logos, in a clause concerning a change made by the emperor Trajan to the fiscal disposition of tomb properties, in which, in accordance with a well-established Roman legal tradition, the productive gardens attached to Roman tombs were declared separable and unprotected by the religious inviolability and prohibition against alienation that safeguarded the gravesites they enhanced. We thus conclude with an anomaly, or at any rate an atypical form, the hyperproductive *kepotaphia* of Roman Egypt, commodity properties bought and sold and rented separately from the tombs to which they nominally belonged, which bear little resemblance to the tomb gardens popular in central western Italy, especially around Rome, and in the province of Asia, or to those attested sporadically elsewhere throughout the empire, wherever Roman culture in its more characteristic forms was found.

Part II

THE EXPERIENCE OF GARDENS
AS REVEALED BY LITERATURE
AND ART

Chapter 9

GREEK LITERARY EVIDENCE FOR ROMAN GARDENS

Antony R. Littlewood

THE PURPOSE OF this chapter is threefold: first to show what further light can be shed on Roman gardens in the West from Greek sources; second to continue the story in the East for the first few centuries after Constantinople had become the capital of the Roman Empire; and third to consider the *Geoponika*, the sole surviving Greek agricultural manual. Necessarily, therefore, the first part will present a very unbalanced picture and the second will include some information from Latin sources.

Although the principal impetus for Roman pleasure gardens came from Hellenistic Greece,¹ Columella, considered the most comprehensive of the Roman agronomists, hinted of possible Carthaginian influence in claiming that Mago, whose treatise in Punic was translated into Latin by senatorial decree, was the father of husbandry.² Carthaginian superiority in agriculture is supported by Diodorus Siculus' description of the land passed through by Agathocles and his Sicilians in their invasion of Punic territory in 310 BC: "the intervening countryside ... was divided into gardens and all kinds of plantations, many streams of water being distributed by conduits and irrigating every area. There were also numerous country houses elaborately constructed with expensive buildings and stuccowork indicating their owners' wealth. The houses were filled with everything designed for pleasure. ... Carthaginian notables had with their riches beautified their estates for enjoyment."³

As for private Roman gardens, an all-consuming interest in them is afforded as early as 82/81 BC by Plutarch,⁴ who claims that in Sulla's proscriptions fewer men were destroyed out of enmity than for greed for property: "His house killed this man, his garden that man and his hot baths another." The example he uses is that of "Quintus Aurelius, a man who took no part in public affairs and one who thought his only share in the troubles was to condole with others in their misfortunes, went to the forum and read through the names of those proscribed. Finding himself among them, he said, 'Alas, my Alban estate is prosecuting me.'" Strabo confirms that in his time (late first century BC and early first century AD) the area between Rome and Tusculum was "adorned by plantings and villas" and that the Bay of Naples (which was rapidly becoming a millionaires' playground) was known as "The Crater" for its extraordinarily rich soil, a result, he correctly surmised, of volcanic deposits from Vesuvius comparable with those at Catana from Aetna.⁵ Although some of the owners of multiple villas may have been mere social climbers⁶ or plutocrats bent on flaunting their wealth, Cassius Dio gives a revealing tale, from the second century AD, of genuine love of a country villa: C. Sulpicius Similis, who had with considerable difficulty obtained permission to resign his position as praetorian prefect and retire to his estate for what proved the remaining seven years of his life, caused to be inscribed upon his tomb the words: "Here lies Similis, who existed (βιούς) so-and-so many years, but lived (ζήσας) seven."⁷

Imperial interest in country palaces with gardens and game parks may have been inspired by: Xenophon's references⁸

to such enthusiasm among Persian monarchs; the activities of Hellenistic rulers (*infra*), perhaps by Mithridates VI of Pontus, who seemingly had in the early first century BC separate menagerie and hunting grounds on his estate at Cabeira according to Strabo;⁹ and certainly by grantees such as Lucullus and Caesar. We hear in a Latin source¹⁰ about Augustus' interest in landscape gardening, and soon after, according to Josephus who was writing of Caligula, about emperors trying to outdo each other in the magnificence of their residences,¹¹ which, as we know again from Latin sources, included gardens. Cassius Dio claimed Nerva (and in Latin sources certain later emperors of the second century AD) sold off imperial estates, and Herodian recorded how Pertinax allowed private individuals to take them over.¹² Cassius Dio and Herodian attest thereafter to Septimius Severus' confiscation of private estates.¹³

Brief mention without any description is made by Greek authors of a few specific gardens in Rome – Caesar's by the Tiber, which he bequeathed to the public; Mark Antony's close by; Pompey's, which Caesar gave to Antony; the Elder Agrippina's; and L. Aelius Lamia's near those of Maecenas.¹⁴ Strabo gives an example of the Romans' penchant for importing Greek statuary for their gardens when he says that Agrippa placed Lysippos' "Fallen Lion" in his gardens in Rome that he later left to the city.¹⁵ The same author informs us that the mausoleum of Augustus, still partly standing today in Rome, was "a huge mound upon a tall foundation of white marble thickly covered right up to the top with evergreens," evidence for the interesting translation of the traditional funerary trees to

the building itself.¹⁶ Outside Rome the Lycian rhetorician Herakleides had a rural estate near Smyrna named "Rhetoric."¹⁷

The luxurious nature of Roman gardens attracted the attention of the Greek moralist Plutarch. C. Marius' villa near Misenum from the early first century BC caused him to proclaim that its "extravagant and effeminate appurtenances" did not befit a soldier.¹⁸ Plutarch also adds details to other Latin sources of what was for its time the notoriously extravagant Campanian estate of L. Licinius Lucullus (consul in 74 BC): "Even today, when luxury has progressed so much, Lucullus' gardens are accounted among the most costly Imperial gardens. His works on the shore and around Naples, where he hung hills over huge tunnels, encircled his residences with circuits of the sea and ponds for the rearing of fish and built rooms in the sea, caused Tubero the Stoic, upon seeing them, to proclaim him a Xerxes in a toga."¹⁹ Plutarch continues that when Pompey visited Lucullus' estates near Tusculum, which included *alfresco* dining rooms, "he chided him for devising his country house ideally for the summer but uninhabitable for the winter, whereat Lucullus said with a laugh, 'Do you think that I have less intelligence than cranes and storks so that I do not change my abode with the season?' " – a tradition of seasonable homes that lasted until the late Byzantine period.²⁰

Greek sources vouchsafe little information on the specific vegetation of Roman gardens, but the great herbal of Dioscorides, written sometime in the early second half of the first century AD, is a mine of information on many plants that are known from frescoes and Roman writers to have graced those gardens (he expressly mentions the oleander as being

a garden plant).²¹ Material here may also be augmented by the surviving botanical treatises of Theophrastus, Aristotle's successor as head of the Lyceum, although all these works are strictly scientific, pharmacologic in the case of the former, botanic in that of the latter.

The Romans' love of fishponds in the gardens of their country villas is illustrated by two tales given by Greek sources.²² Cassius Dio tells²³ of Augustus rescuing a slave of Vedius Pollio whom his master had ordered be thrown into a pool of moray eels as capital punishment for breaking a crystal goblet. Aelian attests to the excessive Roman passion for these eels, telling us that L. Licinius Crassus adorned one "with earrings and small necklaces set with precious stones like a beautiful maiden. Upon being called by Crassus it recognized its name and swam up and would eagerly and readily take and eat whatever he offered it." When it died "Crassus both mourned and buried" it, only to be taunted for this by his political rival Cn. Domitius Ahenobarbus.²⁴ Aelian, writing in the early third century AD, gives further examples from the Greek part of the Roman world of tame fish coming when summoned and wearing necklaces and earrings.²⁵

Since Greek writers in the Roman Empire were writing for Greek-reading Roman citizens, what they reveal of earlier Greek fashions may be assumed to have been of interest to Roman citizens, and, indeed, sometimes to have provided them with specific inspiration. These passages may be divided into those that treat of specific gardens (or gardens in general) and those that treat of imaginary gardens.

The most informative in the first category concerns a boat on whose deck a

garden had been constructed. Whereas Suetonius merely informs us that Caligula “built Liburnian galleys ... with huge baths, covered walks, dining rooms and even a great variety of vines and fruit-bearing trees” for his musical cruises along the Campanian coast, Athenaeus fortunately quotes extensively from a treatise by a certain Moschion of an earlier similar but perhaps more elaborate ship, which it is not unreasonable to assume may have served as a model for the Roman emperor’s.²⁶ This prototype was built in the third century BC for Hieron II of Syracuse by the architect Archias. According to Athenaeus, Archimedes supervised its construction, although the quotation from Moschion attributes only its launching and armaments to the mathematician and inventor. Designed for the transport of wheat, it was also clearly intended for luxurious travel. It contained officers’ cabins (in which were couches) with floors covered in mosaics depicting “the entire tale of the *Iliad*,” whose theme was continued on ceilings, doors, and furniture. “On the level of the uppermost [of three] decks were a gymnasium and covered walks (περίπατοι) ... in which there were gardens of many sorts excelling to a marvelous degree in their plants and irrigated by concealed lead tiles.²⁷ There were, moreover, bowers of white ivy and vines whose roots gained their nourishment from earth-filled tubs and had the same irrigation as the gardens. The bowers gave shade to the covered walks, next to which was built a shrine of Aphrodite with three couches, a floor of agate and other of the most beautiful stones in Sicily, walls and ceiling of cypress, and doors of ivory and citron wood; and it was also lavishly furnished with paintings, statues,

and drinking vessels.” There were in addition a library, whose ceiling had a sundial reminiscent of a similar *horologium* in Varro’s garden dining room,²⁸ a bath-room, and a fishpond filled with seawater, although from its position in Moschion’s list of notable accessories it may be surmised that this last was intended for a practical rather than aesthetic purpose.

Athenaeus, quoting Kallixeinos of Rhodes, is our source again for information from the time of Ptolemy II Philadelphos (first half of the third century BC), who had a temporary pavilion erected for public entertainment.²⁹ This pavilion had some columns in the shape of palms, was partly roofed with myrtles, laurels, and other branches, and had, despite the fact that it was winter, a floor strewn with flowers, “thus truly giving it the appearance of a marvelous (θεῖος) meadow.” The pavilion was associated with a procession, which included a huge float, 33 feet long and 21 feet wide and drawn by 500 men, bearing “a deep grotto profusely shaded by ivy and yew from which flew pigeons, ring and turtle doves” trailing strings to be caught by spectators.³⁰ The Roman interest in attracting birds to, or rearing them specifically for, their gardens, which is so obvious in Campanian murals and in Varro’s description of his estate, is surprisingly not commented upon by any Greek author. Plutarch, however, writing during the first to second centuries AD, sees fit to quote the Hellenistic Stoic Chrysippos, who, in decrying decadent taste in his third-century BC world, had stated “some people rear peacocks, doves, partridges, and nightingales.”³¹

Far more common in Greek sources than descriptions of or anecdotes about real Roman gardens or real Greek prototypes

are *ekphraseis* of imaginary gardens (often paradisiacal and in the tradition going back to Homer),³² which both inspired and were inspired by them. In the middle of the first century BC Diodorus Siculus wrote a multi-volume history that includes a lengthy description of a garden derived from an account of about a century earlier by Dionysios Skytobrachion.³³ Although this garden is mythical, and belongs to the Greek paradisiacal tradition with leaves and flowers that never fall, it served in part as a paradigm for extravagant Roman gardens, especially those called, wholly or in part, "Amaltheia's Horn," the name given to the whole region of the mythical garden.³⁴ Dionysios writes of a "rich land divided by soft grassy meadows and irrigated by the abundant spring water with every kind of fruit-bearing tree and many spontaneously growing vines, most of the type that grows up trees."³⁵ The entrance is shaded by tall trees, which do not allow the direct light of the sun to shine through, while sweet water from springs gushes forth everywhere along the paths. Its most notable feature is a large and beautiful circular cave beneath a huge crag of diversely colored rock strata fronted by various marvelous trees. "When one has passed through the entrance one can see the cave opening out and lighted by the rays of the sun and all manner of flowers growing there, and especially cassia and those others that can retain their fragrance throughout the year."³⁶ Couches, admittedly of flowers and for nymphs to sit upon, further show this to be a model for the Romans' beloved artificial grotto.³⁷ While mention of colorful birds with charming song is reminiscent of Varro's avian theater for his garden *triclinium*, the emphasis upon the healthy properties

of the fresh air is again a theme repeated generally by Strabo for the villa-covered area of the Bay of Naples.³⁸ According to Herodian, Commodus retired to Laurentum (on the coast south of Rome) on the advice of his doctors, who claimed that it was cooler for its extensive laurel groves and "said to counteract atmospheric infections through the redolent fragrance of the laurels and the pleasant shade of the trees."³⁹

Birds, "more tuneful (εὐφωνότεροι) than our musical instruments," are mentioned by Dio Chrysostomos as inhabitants of a wondrous fictional garden in India, again dependent upon the Greek paradisiacal tradition.⁴⁰ It contained a warm bath whiter than silver and a deep, cold blue bath, beauteous meadows, umbrageous flowering trees with fruit ready to pick and branches nodding in a gentle breeze, all under a clear sky and enjoying a constant climate. These elements appear again in Lucian's *Vera Historia* for a garden-like landscape in the Elysian Fields, although here paradisiacal elements are satirically transmuted into the clearly fantastic, such as trees of glass bearing cups that miraculously fill with wine when plucked.⁴¹

A fictional account by Flavius Philostratus is probably similar to gardens around Roman shrines: the god Dionysos is said to have planted ivy and vines around a circle of laurels that grew together to form a roof impervious to rain and wind over a statue of himself on Mount Nysa in India.⁴² Another tree mentioned in this connection is the cedar: according to Philostratus, the Lycian sophist Herakleides cut down sacred cedars, presumably associated with a shrine, for which crime much of his own estate was confiscated, an exceptionally apt penalty.⁴³

The erotic associations of gardens, which the Romans accepted from the Greeks, are to be found in Greek writers of the Roman period.⁴⁴ Thus, Philostratus of Lemnos, in an *ekphrasis* of a painting of Cupids picking and amorously playing with apples, describes a beauteous orchard, which included a rare comment on arrangement for its trees, planted in straight rows with intervening paths bordered by grass.⁴⁵ Again Alkiphron, in an imaginary letter of the second or third century AD from one courtesan to another, describes "a meadow or garden" on a country estate belonging rather to a "man of pleasure (ἐρωτικός) than a farmer."⁴⁶ The principal trees are cypress and myrtle, while laurels and planes shade a grotto, overrun by ivy, which serves as a shrine to Pan, the Nymphs, and Naiads, and where girls make sacrifice at an improvised altar before feasting and then slipping away with their lovers into a shady thicket.⁴⁷ The erotic association of the garden is nevertheless to be found above all in the romance. *Daphnis and Chloë*, attributed to Longus and perhaps to be dated to the third century AD, contains two gardens,⁴⁸ in the first of which Eros makes his first appearance in the story to announce that he is the guardian of the lovers, while the second, according to Forehand, "is used openly to symbolize the rise and fall of the lovers' prosperity."⁴⁹ Far more influential, however, was Achilles Tatius, who seems somewhat earlier to have introduced an *ekphrasis* of a garden into the genre. For him the garden is where hero and heroine, Leucippe and Clitophon, fall in love, a feature of romances that becomes almost *de rigueur*, notably in the mass of later Byzantine romances and romantic epics.⁵⁰ In making the garden the property of the

girl's father, Achilles also connects it specifically with her, thus enabling writers, including himself, to make the one a symbol of the other – the more neat and tidy the garden, the more strait-laced the girl, the more exuberantly overgrown the garden, the more forward the girl.⁵¹ The regular features of these gardens are: "trees that whisper in the wind and intertwine their branches to form shady arbors; roses and other flowers, often vernal and unfading; a gentle wind, usually a zephyr, that moves the branches and leaves of the trees and wafts the scent of the flowers; a wall of increasingly elaborate structure and smooth finish; singing birds; garden pavilions; statues, mosaics, and paintings (often the single most important item); an altar, shrine or chapel";⁵² and sometimes most spectacularly, and based upon real prototypes in palatial gardens, an elaborate and technologically marvelous fountain.⁵³ All of these elements can be shown to reflect real Roman (and Byzantine) gardens or the ways in which they were appreciated.

On May 11 in the year 330 the city of Byzantium on the European side of the Bosphorus was dedicated by Constantine I as capital of the Roman Empire. Although this date did not, of course, mark any clear-cut cultural break, it is safe to claim that by the beginning of the period of Iconoclasm in the early eighth century the world of Late Antiquity had finished its development into a world that, though ever changing, can truly be termed Byzantine. We shall consequently survey briefly the gardens of only the intervening four centuries.⁵⁴

At first the Roman enthusiasm for numerous country villas clearly continued even in the West despite increasing

impoverishment and threat of rampaging military incursions, which latter necessitated, already in the third century, the fortification of villas.⁵⁵ Sources here are nearly all Latin. In the fourth century Symmachus had for his delight three suburban and twelve rural villas, all of which must have included gardens and which he appreciated for salubrity as well as charm and peace.⁵⁶ Ausonius, although possessing only a modest estate (the subject of his *de Heriodolo*) and critical of excessive luxury, nevertheless praises the charms of many villas along the Moselle, especially for their rural views.⁵⁷ Another poem,⁵⁸ of uncertain authorship but occasionally ascribed to the same poet, tells of the delight of strolling at dawn through a garden shimmering with hoarfrost, while Claudian's *epithalamium* to the emperor Honorius and his bride Maria in 398 dips into the paradisiacal tradition.⁵⁹

For the fifth century there are more substantial descriptions. The Christian Saint Melania the Younger had possessed, among the numerous properties in Italy, Sicily, Spain, Africa, Mauretania, Britain, "and other countries" that she sold in 404 for the benefit of the poor, one particularly sumptuous villa whose outstanding feature was a pool with views for the bathers of both hunters in the forest and boats on the sea.⁶⁰ Prudentius depicts the righteous singing hymns in a fragrant and flowery Roman pleasure garden and represents the delights of a simple rural estate;⁶¹ Rutilius Namatianus describes gardens with groves, birds, and fishponds at the ports where he called on his journey, probably in 417, from Rome to his estate in Gaul;⁶² and Sidonius Apollinaris, a Gallo-Roman aristocrat and later bishop of Auvergne, is a signal witness to the continuation, even

at this late period, of the type of extravagant features so beloved by the Romans of the first and second centuries when he describes in considerable detail his own villa at Avaticum and that of a friend.⁶³ The former contained a lake for aquatic sports and a ball court shaded by two huge lime trees with interlacing branches, and was rendered more ravishing by the sounds of shepherds piping, sheep bleating, swallows twittering, rooks cawing, swans and geese honking, cicadas chirruping, and frogs croaking – an extraordinary list of aural delights. The latter villa contained a vista of water issuing from a rock so naturally beautiful that, a rare comment from a Roman, it needed no artificial embellishment, and also inlets of the river into the house so that fish swam and in stormy weather boats were tossed into the dining room. In a poem on another of his villas Sidonius mentions an artificial grotto and specifically lists the violets, marigolds, narcissi, hyacinths, saffron, cassia, thyme, and privet.⁶⁴

As late as the sixth century Venantius Fortunatus can still take delight in fragrant flowers, elaborate fountains, and the seemingly inevitable fishponds at Burgundian country villas.⁶⁵ That barbarians were not immune to such delights is evidenced by the Latin poems of Luxorius for Vandal North Africa, which expatiate on a fish answering to its master's call, a fountain surrounded by statues, whose water is made to splash over a marble step, a pavilion set in a pleasure garden with a picture of its owner slaying a boar, never-failing foliage, ever-aromatic plants, mossy stream, and sweetly warbling birds.⁶⁶ That this is not just literary imitation is made clear by Prokopios' mention of the shady and well-watered Vandal

pleasure gardens met by Belisarios' conquering army in 533.⁶⁷

For the East John Chrysostomos preaches against landowners who own ten or twenty villas,⁶⁸ Libanios mentions rich Antiochians owning villas in Daphne to avoid aestival urban heat, and Eunapios and Kallinikos report that high officials from Constantinople similarly removed themselves to their Bithynian estates.⁶⁹ The emperor Julian probably had Lucullus' words in mind when he refers to "rich men changing their abode with the seasons," and praises Constantius for not doing exactly that and for "not demanding a surfeit of the seasons' good things, nor caring for ice in summer."⁷⁰

Apart from the extensive general comments in Libanios' *Antiochikos*⁷¹ only two descriptions of actual early Byzantine gardens survive, both from the fourth century and both sparse in detail. In one Saint Gregory of Nyssa (Cappadocia) enthusiastically praises a friend's villa at Vanota on the Halys in central Anatolia.⁷² This estate boasted woodlands, fruit trees, vineyards, and a chapel. Outside the main doors of the villa tall planes shaded either a permanent dining area or a favorite picnic spot, while a fishpond was contained in the central courtyard over whose colonnaded base splashed water to delight everybody in a well-lit dining room.

The other, by Julian, is of the country estate given him by his grandmother, where he planted a vineyard with his own hands.⁷³ It was about two and a half miles from the Sea of Marmara on the Asiatic side. Although we know of Imperial villas almost on the sea itself, the emperor considers its position an advantage since it was undisturbed by chattering and insolent traders and sailors, and

instead of "standing on seaweed ... and being annoyed by the unpleasant things thrown up onto the shore and sand," he could peacefully lie "on smilax, thyme, and fragrant plants," now reading a book, now gazing at the ships and the sea. The estate was clearly not completely flat or simply sloping because if he walked up a gentle hill from the house, he could see Constantinople. In his youth he considered it, with its "splendid springs, lovely bath, garden, and trees," an ideal summer retreat, and later in life he frequently visited it for literary discussions, thus again perpetuating a Roman (and earlier Greek) tradition.

Although these descriptions give virtually no specific detail, it is just possible that an interesting facet may be preserved in the *Dionysiaka*, a fictional extravaganza of probably the early fifth century by Nonnos. In his *ekphrasis* of Kadmos' garden we hear of a large garden of date palms, clusters of pears jostling against olives, figs, pomegranates and apples, myrtle, laurel and cypress, and, in a garden of flowers, hyacinths blown by the gentle breeze. The interesting feature, however, is that the gardener used curved channels (πολυσχιδὲς ἀγκύλον ὕδωρ) to take the water from its source to the plants: the scanty evidence from illustrations shows straight irrigational channels.⁷⁴

We have seen how Roman grandees and emperors attempted to outdo each other in the construction of elaborate estates, and this tendency increased in the Byzantine period, partly through the tradition of the various "Persian" dynasties (especially Achaemenid and Sassanian) and then the rivalry of the Islamic caliphate.⁷⁵ Although many of these estates are mentioned,⁷⁶ their varied sources rarely comment on

the gardens themselves. Nevertheless, Sozomenos informs that Makellon, the imperial estate at the foot of Mount Argaios near Caesarea in which Gallos and Julian were imprisoned as boys, boasted fine gardens (and its name suggests a substantial wall).⁷⁷ More interesting is the palace at Hieria (on the peninsula of Fenerbahçe, in modern Istanbul), which Justinian had built for his wife Theodora to enjoy during the summer; this included parkland and could well be the subject of poems in the *Palatine Anthology*, of which one, by Paul the Silentiary, reads: "The sea washes the abode of the earth, and the navigable expanse of the dry land blooms with marine groves. How skilled was he who mingled the deep with the land, seaweed with gardens, the floods of the Nereids with the streams of the Naiads."⁷⁸ Whether or not the identification is correct, these poems suggest a continuation of the Roman practice of building out over the sea.

Pride of place among palaces must go, of course, to the Great Palace, which was continually being changed and enlarged up to the time of the city's sack by the "sanctified bandits" of the Fourth Crusade. Most of our literary evidence for it comes from the tenth century, but long before that it was a complex stretching down on terraces from the Hippodrome to the Sea of Marmara and consisting of public reception and banqueting halls, residential quarters, churches, chapels, baths, pavilions, sports grounds, fishponds, orchards, vegetable gardens, and, of course, pleasure gardens, two of which, the Mesokepion and the Anadendradion, are specifically named.⁷⁹ It was thus similar to Hadrian's Villa at Tivoli but on an even more lavish scale. Literary sources from early centuries inform us that the emperors Maurice and

Phokas both placed their own statues on the terrace around the Magnaura Palace;⁸⁰ while John of Ephesus vouchsafes the tantalizing detail that Tiberios (AD 578–82) "destroyed a lovely garden which had existed in the middle of the palace to the huge delight of former emperors."⁸¹ Was this simply the pavement, partly surviving today, showing scenes of hunting, gardening, and quotidian rural life, or does it refer to a real garden?⁸²

The inherited Roman love of gardens in an increasingly Christian Byzantine world was further enhanced by the biblical example of God giving the first man and woman a garden as their abode and by the injunction of Jeremiah to "plant gardens and eat their produce,"⁸³ where mention of a garden is significantly a Greek addition to the original Hebrew. Thus, to the belief that an imperial garden was a symbol of power and prestige the Byzantines were able to add, though admittedly only from the tenth century, the idea that it was a "new creation" or "new Eden," and in this way made its construction or alteration an act of renewal of an emperor who, as vicegerent of God, is the terrestrial Creator; and furthermore it enabled the garden to be regarded also as "an embodiment of the virtues of the emperor."⁸⁴ Apart from Augustus' bizarre taste in garden decoration, there is, however, no other incontrovertible evidence for a western emperor's personal role in design, never mind any actual "hands-on" work.⁸⁵ But in the East emperors added involvement to interest. It is recorded that Diocletian, the first emperor to establish an eastern capital, responded to a suggestion that he come out of retirement by remarking "would that you could see the vegetables planted with my own hands at

Salona: then indeed you would think that out of the question."⁸⁶ Similarly, Julian planted a vineyard before his ascent to the imperial throne, Heraklios created vegetable gardens and parks,⁸⁷ and thereafter many emperors took a great personal interest, especially Constantine IX, whose enthusiasm for landscape gardening is satirized by Michael Psellus.⁸⁸ It is also worthy of note that in the early sixth century the parishioners of the Constantinopolitan suburb of Honoratae saw fit to thank their benefactress, Anicia Juliana, a member of the imperial family, with a lavishly illustrated copy of Dioscorides' herbal, presumably for practical use.⁸⁹

Christian approval, however, encouraged the church's interest too in three ways. First, despite its arid origins in Egypt, monasticism embraced both horticulture and agriculture: indeed the gardener is a type of ascetic as early as Eusebios,⁹⁰ while in particular abbots or abbesses could be metaphorical gardeners tending their plants (monks and nuns) in a garden (monastery).⁹¹ The twinned skills were insisted upon by Saint Basil⁹² for his vastly influential monastery and rapidly became regular and permanent features of monastic life, as many post-Iconoclastic sources make clear.⁹³ It is, nonetheless, notable that Saint Basil can stress aesthetic delights in a letter to Saint Gregory of Nazianzos when he describes the setting for his remote spiritual retreat in the language of the pagan Greek paradisiacal tradition, which had watered not only descriptions but also the reality of Roman gardens.⁹⁴ Far more remarkable still, however, is the monastery called "Viridiarium" ("Garden") into which Cassiodorus converted his estate at Scyllacium (Squillace) in Bruttium (Calabria) after Justinian's

conquest of Italy in the sixth century. Here he offered monks a choice between the eremitic solitude of Mount Castellum and the coenobitic luxury of a monastery with well-irrigated gardens. In the latter, weaker brethren could experience some of the delights of classical Roman aristocrats, for Cassiodorus made an excavation in the rock, to which he gave the name of "Gates of Neptune," to allow in "a school of fishes sporting in their free captivity" to "refresh the spirit with amusement and delight the eye with wonder. Eagerly they rush to the hand of man and, before they become food, they demand tidbits: man feeds his darlings and, although he can catch them, frequently when well provided lets them go."⁹⁵

The second effect of Christian approval involved the gardens that were planted around, in particular, an urban or suburban church, although we must not discount the influence of pagan shrines, as is suggested by the fact that part of the description of the grounds around the Church of the Holy Apostles in Constantinople by Nikolaos Mesarites ca. 1200 is taken verbatim from Libanios' fourth-century description of Daphne, the suburb famous for its pagan shrines (and expensive villas) outside Antioch.⁹⁶ Most of the relevant literary evidence for Byzantine churches comes from a period too late for consideration here,⁹⁷ but Prokopios in the sixth century revels in describing a sanctuary dedicated to the Virgin at Pege (modern Balıklı) just outside the capital, where there were a thick grove of cypresses, a flowery meadow, a park of shrubs, and a quietly bubbling stream – "all things befitting a sacred place."⁹⁸

The third effect involves the interior of churches. Although no large-scale

mosaics (or frescoes) of vegetation survive from the Byzantine world, with the specific exception of mosaic pavements of God's created world,⁹⁹ marble intarsia may have prompted Paul the Silentiary in the sixth century to describe the interior of Hagia Sophia as containing fruit, baskets, leaves, birds perched on boughs, and a twining vine with golden-haired shoots;¹⁰⁰ and the famous Barada panel¹⁰¹ in the Great Mosque at Damascus calls to mind Chorikios' enthusiasm for trees and a river flanked by meadows in mosaics of the church of Saint Stephen at Gaza¹⁰² (this fifth- and sixth-century practice was restored by the iconoclasts, who were accused of replacing figural images on the walls of the Constantinopolitan Church of Blachernai with "mosaics of trees and all manner of birds and beasts, and swirls of ivy leaves surrounding cranes, crows, and peacocks," thus rendering the church "an orchard and an aviary").¹⁰³ The Byzantines, however, were able to visualize gardens and meadows in marble panels that bear no such resemblance to modern eyes. Cassiodorus mentions marble workers able to cut and join variegated panels to simulate nature¹⁰⁴ and an anonymous writer claims that Justinian sent a certain Manasses to Prokonessos to cut "marble there in the likeness of earth and green marble in the likeness of rivers running to the sea" to decorate Hagia Sophia.¹⁰⁵ Success in this enabled Prokopios to imagine that in the galleries he had "come across a meadow blooming with flowers,"¹⁰⁶ while Paul the Silentiary describes the pulpit in these terms: "as an island rises amid the billows of the sea, adorned with ears of corn, clusters of grape vines, a blooming meadow, and wooded cliffs ... so in the midst of the boundless

temple rises upright the tower-like ambo adorned with a meadow of stones [i.e., mosaic tesserae]."¹⁰⁷

Despite the paucity of specific facts about early Byzantine gardens, we can see an enthusiasm that increasingly manifested itself, especially in later centuries, in the inclusion of gardenly details in appropriate and, significantly, quite inappropriate miniatures, mosaics, and frescoes,¹⁰⁸ the use in all genres of literature of horticultural imagery,¹⁰⁹ and, in the Palaiologan period, horticultural names of both male and female peasants.¹¹⁰

The sole surviving agricultural manual in Greek is known as the *Geoponika*.¹¹¹ Although part of the great encyclopaedic program of Constantine VII Porphyrogennetos in the middle of the tenth century AD and thus outside the chronological confines of this chapter, its origins lie in much earlier compilations. Despite the existence in manuscripts of authors' names for individual chapters, the *Geoponika* is essentially a reworking of Kassianos Bassos' *Eklogai (Selections) on Agriculture* (probably made in the sixth century), itself taken largely from the *Synagoge (Collection) of Agricultural Practices* written in the fourth century by Vindanios Anatolios, a celebrated jurist from Beirut, friend of the orator Libanios and probably prefect of Illyricum. It may have been Anatolios who gave this work an eastern Mediterranean bias,¹¹² yet much of his material is derived from Hellenistic writers and also from some of those of the classical Roman period.¹¹³ When, therefore, its contents expand upon hints found earlier, we may, with due caution, take it as evidence for periods long before the tenth century.¹¹⁴

Although primarily agricultural, the work contains three horticultural books

comprising 161 chapters,¹¹⁵ and elsewhere many pieces of information applicable to gardens. Sections deal with appropriate soils; planting seasons; the “Democritean” doctrine of sympathy and antipathy in planting; propagation from seeds, suckers, and cuttings; techniques of grafting, manuring, pruning, and transplanting; protection from pests; methods of preservation; and therapeutic uses. Many of these subjects appear repeatedly for their application to a huge number of specific plants, especially trees and their fruits and vegetables, but also herbs and flowers; and the majority are sound, practical advice. Of a somewhat different nature, however, are recipes for: enhancing the redness of peaches (by pouring cinnabar into the opened stone) and apples (by grafting onto plane, watering with urine, tying of branches over vessels of water to take advantage of the vapor rising therefrom under the midday sun, and the planting of red roses beneath); producing myrtle-flavored grapes and white mulberries (grafted onto myrtles and white poplars respectively); growing figs white on one side, black or red on the other (by tying eyes of different shoots together or planting cloth containing different seeds); eliminating stones in peaches (by inserting a piece of willow or cherry deep into the trunk of the tree); creating markings on nuts and the kernels of fruits (by making similar marks upon the kernels that are planted to grow the parent trees); and transforming fruits into the shapes of birds, animals, and even a man’s face (by placing molds around them when still young).¹¹⁶ Although most of these latter are quite fanciful,¹¹⁷ they do attest to the classical Roman preoccupation with improving upon nature.

The *Geoponika* also contains recommendations for the placing of a villa and its gardens and for the latter’s design. At 2.3.1–2 it avers: “Generally more healthy are sites by the sea and those in the hills and on slopes inclining to the north. Those near swamps and meres or in hollows or facing south or west are pestilential. Buildings must be constructed on higher ground, for such a site is most suitable for health, view and appearance (ἄποψιν καὶ κατασκοπήν).” Chapters then follow on sites and soils most likely to have supplies of water, the advantage on an extensive property of having a hill, which if not naturally wooded should be planted, and the best types of soil and how to recognize them.¹¹⁸ Recommended trees are: willow, tamarisk, white poplar, fir, ash, elm, and their ilk in moist soil; pine in sandy soil; pomegranate and olive in dryish soil; oak and chestnut in rainy locations.

More specifically on gardens it states: “Anyone wishing to have a garden must choose a suitable site, within the farmstead (ἐνδοθεν τῶν ἐποικιδῶν) if possible, otherwise close by, so that not only may lovely things be seen by those indoors but also the circumambient air, infected by the plants’ exhalations, may make the property salubrious. [The garden] should be carefully surrounded by a wall¹¹⁹ or some other structure. The plants should be grown neither in disorder nor mingled together so to speak, although variety of plants brings about a pleasant appearance; but all the plants should be set out separately by type so that the weaker are not overpowered by the stronger or deprived of nourishment. The whole of the space between the trees should be filled with roses, lilies, violets, and crocus, which are very

pleasing to sight, smell, and utility, are profitable, and are beneficial to bees."¹²⁰ A further section claims that: "Making a garden is most necessary for life. So a garden must be prepared, both for health and for recovery from illness, not far from dwellings but nearby so that it may provide delight from the sight of it and pleasure from its fragrance. A man ambitious to grow garden herbs¹²¹ must take forethought for good seeds, suitable soil, water, and manure."¹²²

Thus we find, in addition to a wealth of practical information, an aesthetic enjoyment of sight and fragrance to

which can be added, from Libanios, an emphasis upon the health-giving benefits of a garden.¹²³ This last, important already to the Romans, was fervently believed by the Byzantines, among whom the emperor Constantine III built a palace at Chalcedon ca. 680 in the hope that it would improve his health,¹²⁴ and the emperor Theophilos in the first half of the ninth century caused to be built a large and beauteous edifice clearly surrounded by gardens expressly to house erstwhile prostitutes whose "baneful lusts would be washed away" by the fresh air and lovely views.¹²⁵

Chapter 10

REPRESENTATIONS OF GARDENS IN ROMAN LITERATURE

K. Sara Myers

PLINY THE ELDER in his *Natural History* introduces his discussion of gardens with the claim that the subject is worth treating because of the intrinsic value of horticulture and because antiquity had admired and recorded famous gardens.¹ There survives a large body of Roman literature in which gardens, both real and imaginary, figure in a variety of modes. Garden descriptions form an important part of the Latin literary traditions of poetical *ekphrasis* (the description of a work of art, monument, or landscape), rhetorical display, and philosophical and natural-scientific ethical discussion. These we can study in order to explore not only the ways in which Romans thought about the functions and meanings of gardens but also the ways in which they used gardens, both real and fictional, to think about and define themselves, socially, aesthetically, and politically.² As Purcell has argued, “deep in what the Romans thought about themselves we find intensive horticulture and the lots on which it took place.”³

Recent scholarship on Roman gardens has stressed the power of gardens to convey messages about their owners and their conceptual importance in the Roman imaginative landscape. For a Roman the garden served as a multivalent symbol of certain ways of life, ranging between the polarities of rustic simplicity and sophisticated leisure. While the productive kitchen garden (*hortus*) could serve as a paradigm of ancient Roman rusticity and self-sufficiency, from the Republican period onwards the development of suburban villa/

garden complexes (*horti*), which borrow from eastern ideas of gardens as displays of political power, meant that gardens could be viewed as manifestations of luxury (*luxuria*: ostentatious extravagance, with the suggestion of immoderation and perversion) and as displays of the control of nature (especially of converting city to town or vice versa).⁴ The garden occupies a controversial place in Roman thought as a *locus* of both the natural and the unnatural or artificial. Debate about its artificiality arises from the garden's ability to display the potency of human skill and artistry (*ingenium* and *ars*) in the "creative adaptation of natural order."⁵ Clearly the boundaries between the natural and artificial, the acceptably cultivated and the perversion of nature, are difficult to define in the context of a garden. Gardens are uniquely equipped to convey social, political, sexual, and literary messages. As symbolically separate realms in which the relationship of human activity and the natural world is magnified and intensified, gardens may serve as a microcosm of a number of different worlds, of ethical or artistic pursuits, the state, and even the cosmos.

This chapter will focus on analyzing selected literary representations of gardens, both real and fictional, not with the goal of reconstructing actual Roman gardens from these sources, but rather with the aim of investigating the ways in which Romans used garden descriptions in their culture, especially literature, as forms of self-representation: ranging from societal self-fashioning, literary programatics and ideals, and representations of patrons, to moral positioning. The Roman garden is both a cultural and a literary space; the two aspects cannot be separated. *Paradeisos*

(eastern pleasure garden), *locus amoenus* (the literary ideal landscape), pastoral idyll, and Greek philosophical gardens are all cultural and literary ideals invoked in actual Roman villa and garden programs.⁶ In this investigation I draw heavily on the extremely stimulating recent scholarship by social historians, art historians, archaeologists, and topographers that has significantly reconstructed Roman attitudes and practices regarding gardens and the position of gardens within domestic and public spaces, as well as the landscape. While an understanding of the environmental and cultural significance of actual Roman gardens is essential to approaching their literary representations, it is also true that the largely imaginative gardens of Latin literature can shed light on the conceptual and aesthetic ideals evoked by real Roman gardens.

TECHNICAL TREATISES ON GARDENS

Pliny the Elder cites as sources for his information on gardens numerous authors of lost works on horticulture entitled *Cepurica*/κηπουρικά by such authors as Caesennius and Castricius, Firmus, Valerius Messala Potitus, and Sabin(i)us Tiro; none of which survive.⁷ The Augustan period saw an increase in garden literature and horticultural professionalization. In the works of the major Roman writers on agriculture, we have valuable information about Roman gardens as part of the farm or villa estate, although horticulture does not technically belong to the category of agriculture, except in cases when garden crops are grown for market near cities or towns.⁸ In Cato the Elder's

De Re Rustica, a practical handbook for large-scale farming, the *hortus inriguus* (“a well-watered garden”) is rated second (vineyards come first) in his list of the nine most important and profitable parts of the best sort of farm.⁹ Varro’s *De Re Rustica* of the late Republic is a much more sophisticated literary work. Written in the form of a philosophical discourse, Varro’s treatise includes advice on such horticultural activities as bee-keeping,¹⁰ the management of fish stocks,¹¹ and even game preserves,¹² which combined decorative villa landscaping and horticultural elements with profit-making occupations (*villa pasturing/pastio villatica*).¹³ Birds could be raised for profit but also simply for pleasure (Figure 10.1), as represented by Varro’s elaborate aviary at his villa at Casinum, which took the shape of a writing tablet – rectangular with a rounded top.¹⁴

The first-century AD author Columella discussed the subject of horticulture (*de cultu hortorum*) in the tenth book of his treatise on agriculture, *De Re Rustica*, and again in prose in Book 11 (11.3). He acknowledged the topic’s uniquely poetic associations by composing this book alone in verse form as a professed tribute to Vergil’s *Georgics*¹⁵ and a signal to the separateness of the garden from other aspects of farming.¹⁶ The tenth book is particularly colored with astrological and mythological elements in contrast to more practical advice on horticulture elsewhere in the work, especially in Book 11.¹⁷ Although in his preface to Book 10 Columella claims that the cultivation of gardens for their produce is more than ever in demand, and thus justifies his treatment in the book of the utilitarian kitchen garden,¹⁸ elsewhere in the work he describes features more typical of the domestic landscape



Figure 10.1 Male golden oriole, House of the Golden Bracelet, vi.17.42, Pompeii, fresco.

of extensive villa estates, such as aviaries, fishponds, and game preserves.¹⁹

THE ETHICS OF HORTICULTURE

Roman domestic garden architecture, as Purcell argues, “is consciously linked with important philosophical questions of how man should behave and what his relationship is with the natural setting.”²⁰ However, Roman attitudes towards gardens were openly ambivalent. In Latin literature gardens may serve as symbols of the wholesome and traditional life of

self-sufficiency or, conversely, they may be used to represent morally dangerous luxury. Literary garden descriptions can thus be used to characterize both moral correctness and turpitude.²¹ As this publication makes clear, actual Roman gardens varied from small, individual kitchen plots or even plantings in pots or window boxes,²² funerary gardens, villa-peristyle pleasure gardens, large-scale commercial market gardens,²³ and sacred and public precincts,²⁴ to extensive landscaped private estates described by moralizers (e.g., Seneca) and eulogizers alike (e.g., Statius, Pliny the Younger). Pliny the Elder associates the cultivation of the utilitarian kitchen garden with traditional Roman virtues and claims that “even a certain sense of sanctity is attached to the garden.”²⁵ For Pliny, the productive garden (*hortus*) represents the epitome of man’s ideal and harmonious relationship with nature, one in which nature’s productivity is increased through man’s activity and one which “was felt to be particularly appropriate to Roman *mores*.”²⁶ He complains, therefore, that the wealthy Roman elite of the late Republic and the Empire constructed for their villas spectacularly elaborate gardens and called these estates *horti* (“now indeed under the name of gardens people possess within the city itself fields and villas for their delectation”),²⁷ thus appropriating the Roman ideal of the traditional kitchen or market garden to their projects of elitist personal displays of power.²⁸ The interpretation of a garden is always open to this dual reading in which the simple typology of the garden of leisure versus the simple peasant garden is blurred. The possibility always exists that “one kind of garden is liable to masquerade as another.”²⁹

The Rustic Roman Ideal

Pliny the Elder uses the garden as a *locus* to illustrate how *luxuria* perverts the traditional Roman value system by the development of new gardening techniques, which discriminate in the products grown for different social classes, even in such basics as cabbage, herbs, and kale.³⁰ Pliny stresses the role of the garden in expressing the ideals of simplicity and self-sufficiency, both of the *plebs* at Rome (“At Rome at any rate the garden was in itself a poor man’s farm; the lower classes had their provisions from a garden”³¹) and of the farmer of the past, who was judged by the produce of his garden.³² Here we see how the role of horticulture in Roman thought is allied with the “myth of the peasant patriarch,”³³ which reflects the deep-seated belief in the archaic agricultural origins of the national and civic character. The rustic ideal of the garden resonates in many of these texts, where garden descriptions often contain strong ethical elements.³⁴ Literary texts as well as actual gardens laid stress on the associations of horticultural activities and traditional *pietas* (religious duty) and *virtus*.³⁵ Cicero characterizes Cato the Elder, that moral exemplar of old Roman *virtus*, as cultivating into his old age the rural activities, including gardening, that he wrote about in his agricultural treatise.³⁶ In this way too, the posing of even large estates as *horti* could provide the elite with a sort of “moral alibi.”³⁷ A number of recently excavated villas have revealed a concern with displaying conspicuously the functionality and productivity of their estates.³⁸ While it is beyond the scope of this chapter to discuss the widespread use in Augustan iconography of natural abundance and

fertility (often horticultural), there is no question that the emperor Augustus was tapping into many of these ideal moral associations of the garden (rusticity, independent farmer, fertility, peace, idyll, traditional rustic religion).³⁹

Gardens and Luxury

While the productive kitchen garden (*hortus*) could serve as a paradigm of ancient Roman rusticity and self-sufficiency, from the Republican period onwards the development of urban villa/garden complexes and the incorporation of horticulture into a repertoire of forms of the ostentatious display of wealth and sophistication meant that ornamental gardens could also be viewed as manifestations of morally unacceptable luxury and excess.⁴⁰ In a famous passage, Vitruvius prescribes the accoutrements of an estate worthy of the highest-ranking Roman officials (*nobiles*), including, along with lofty, palatial entrance halls, “groves and promenades designed on the more ample scale which is suitable for their grand public image.”⁴¹ Within this new articulation of the garden, the paradoxical was esteemed; hence, the increased popularity of unproductive and exotic trees and shrubs, which displayed the owner’s lack of concern with the traditional productive features of the garden and his power to relocate foreign plants. Purcell has suggested that the outraged reactions to Nero’s Golden House, which created, as Tacitus explained, “a semblance of what nature had denied,”⁴² reveal that the “messages of ruthless power over the landscape intended by owners of such estates were fully understood.”⁴³ Lucullus was criticized as a “Xerxes in a toga” for

his ostentatious manipulation of nature on his estates.⁴⁴ The importation of exotic foreign plants from the far-flung edges of the Roman Empire made Roman gardens visible sites of imperial power.⁴⁵ It is not surprising that Statius, Martial, and Pliny the Younger, for example, grappled with traditional ethical concerns about gardens and villas in an age when personal luxury was simultaneously a subject for encomium and a potential target of imperial jealousy.

In the moralistic writings of such authors as Horace, Seneca the Elder and Younger, and Pliny the Elder, extravagant gardens were condemned as luxurious and unnatural perversions of nature: building over water;⁴⁶ gardens on rooftops;⁴⁷ trees preserved in the middle of houses;⁴⁸ the leveling of hills;⁴⁹ plane trees;⁵⁰ baths on the water;⁵¹ and artificially shaped trees (*nemora tonsilia*).⁵² Large pleasure gardens associated with extravagant estates often appear in literature as emblems or manifestations of luxury, licentiousness, and perversity. Thus, Cicero characterizes Clodia by linking her luxurious gardens by the banks of the Tiber with her indulgence in brazen debauchery.⁵³ Gardens also appear in significant social and political contexts in Tacitus’ *Annals*. It has been observed that Tacitus characterizes the dissoluteness and power hunger of two of the emperor Claudius’ wives, Messalina and Agrippina, by having both undertake the destruction of powerful Roman men in order to possess their estates and gardens.⁵⁴ Messalina’s eventual execution in the very gardens she had coveted underlines the inappropriateness of her behavior.⁵⁵ Tacitus implicates these gardens in the “dynamics of imperial power and its contestations” by representing the

acquisitiveness of these imperial wives as abusive power plays.⁵⁶ Gardens (*horti*, usually implicating the whole suburban estate) appear frequently in political and moral invectives against powerful Roman leaders, including emperors, as signs of luxury and places for unnatural and perverse seclusion. So Cicero attacked Antony with such a reproach: "He gives birthday parties in his gardens (*in hortis*) ... Oh the scandalous disgrace of the man!"⁵⁷

Philosophical Gardens

Pliny the Elder connects the development of the luxury *hortus* with the Greek philosopher Epicurus, "the teacher of leisure."⁵⁸ The association of the villa and its garden with philosophical and intellectual pursuits is widespread in Greek and Latin literature.⁵⁹ Romans adopted in their domestic architecture many features of Athenian *gymnasia*, gardens, and parks, which were associated with the major Greek philosophical schools. Peristyle gardens and extensive covered walks, as well as *gymnasia*, became part of the garden landscape of the Roman villa.⁶⁰ Cicero sets many of his philosophical discourses at villas and specifically in gardens, and at his estate at Tusculum he had built an "Academy" and "Lyceum."⁶¹ Varro too mentioned his Museum where he worked and kept his library,⁶² thus gesturing towards the philosophical associations of his agricultural discourse. By means of such pavilions with culturally ostentatious names these Romans consciously sought to recreate at their estates the philosophical gardens of Athens.⁶³ Garden statues of Greek philosophers and authors similarly proclaimed their

owners' cultural pretensions (Figure 10.2).⁶⁴ Many passages in Latin literature underline especially the Epicurean associations of gardens.⁶⁵ Epicureanism, too, is associated with the Bay of Naples area and is famously represented in the Villa of the Papyri.⁶⁶ Stoic philosophers frequently used the garden as a symbol of Epicurean pleasure: *voluptas*.⁶⁷ Seneca, for example, describes with approval an ideal Epicurean garden (*hortulus*) as a source of simple and natural pleasure.⁶⁸ The philosophic garden symbolized an ideal of self-sufficiency and frugal contentment similar to Pliny the Elder's ancient Roman ideal.⁶⁹ Cicero expresses the Stoic ideal of man as the civilizer of the natural world in terms of the taming and cultivation of the soil.⁷⁰

In Latin literature philosophers are therefore often associated with and located in gardens. According to Tacitus, the



Figure 10.2 Terracotta statuette of Pittacus of Mitylene, House of Julia Felix, 11.4.1–12, Pompeii.

Stoic philosopher Thrasea Paetus bravely received the news of his condemnation by the Senate while he was *in hortis* with the Cynic philosopher Demetrius.⁷¹ In the figure of the wealthy senator and philosopher Seneca the Younger, Tacitus focuses on the ambiguity and possible hypocrisy of the rich Stoic by mention of his villas and gardens.⁷² Among the charges leveled against Seneca was the complaint that by means of his great wealth and “the charm of his gardens and the splendor of his villas”⁷³ he seemed to be attempting to rival the emperor in display and influence. In his defense Seneca offered to abandon these pleasures and devote himself to contemplation (“I shall recall to the devotion of the mind the time now set apart for the care of my gardens and villas”)⁷⁴ but was, instead, exiled. Juvenal in his third *Satire* makes fun of the ideal of the modest and philosophical garden in Umbricius’ suggestion to withdraw from town to a modest property (*hortulus*) where one can supply a suitably humble banquet for one hundred Pythagoreans.⁷⁵

GARDENS OF POETRY

Pliny the Elder, in beginning his discussion of gardens by recalling the mythical and literary gardens of the Hesperides, of Adonis, and of Alcinous, reflects the persistent literary associations of gardens in Roman thought.⁷⁶ As a literary *topos*, gardens, as early as Homer’s *Odyssey* (especially Alcinous’ miraculously fertile gardens on Phaeacia),⁷⁷ could be imagined as ideal landscapes, embodying social, sexual, philosophical, political, and poetical ideals.⁷⁸ But such literary landscapes in general were perhaps

more the result of rhetorical and contextual requirements, and less the realities of horticulture or climate, just as garden frescoes may have “derive(d) more from artists’ compositional habits than from landscape design.”⁷⁹ As luxury gardens were products of the artifice of landscape architects, so authors used literary descriptions of gardens to represent the skill of their compositions. Gardens in literature invite the reader to consider the rhetorical and symbolical value of their ornamental schemes.⁸⁰ Like a text, the garden is an individually designed work of human skill and can thus effectively represent a creative work of art. The literary representations of gardens, as well as actual Roman gardens, engaged in sophisticated play between the mimetic representation of the real (or natural) and the artificial. The competition between the natural and the artificial (*natura/ars*) is a recurrent motif in Latin literature, reflecting playfully the very act of artistic creation (cf. e.g., Ovid on a grotto in which “nature by her own skill had imitated art”).⁸¹ We will discuss below literary, as well as actual, play with this motif of natural and unnatural in context of gardens in the works of Statius and Pliny the Younger.

Eros in the Garden

Gardens in ancient literature since Homer (see especially Calypso’s grove at *Od.* 5.63–73) often exhibit strong erotic associations and are especially associated with female sexuality (κηπος or *hortus* = *culus*).⁸² The walled-in garden is also found as a symbol of virginity, especially as a *topos* in the wedding hymn (*epithalamium*), as in Catullus 62 where the virginal bride

is compared to “a flower secluded in an enclosed garden.”⁸³ Flowers in the literary tradition are frequently associated with sexuality, as well as with virginal purity and its vulnerability.⁸⁴ The gods traditionally connected with gardens affirm these erotic associations. For example, ithyphallic statues of Priapus were traditional guardians of gardens.⁸⁵ Pans, nymphs, and Venus – all associated with sexuality – also were common images in gardens (Figure 10.3).⁸⁶

In Rome Flora (Figure 10.4) was identified as the goddess of flowers and plants.⁸⁷ In Ovid’s *Fasti* we get a lively account in an interview with the goddess herself of her associations with flowers and fertility as

well as her festival, the *Floralia*, celebrated from April 27 to May 3.⁸⁸ The festival was associated with prostitutes, and comic and scandalous dramatic performances were staged: “no stage customarily engages in more licentious jesting.”⁸⁹ Her cult was ancient and respected, flourishing into the Empire. Ovid underlines the erotic associations of flowers with the mention of the symposiastic garlands and drunken lovers at closed doors, which are standard motifs of Latin love poetry.⁹⁰ Carole Newlands has claimed that Ovid’s depiction of Flora serves in the *Fasti* as a poetic “symbol of Ovid’s new Roman elegy,”⁹¹ which combines the erotic and civic domains. Flora describes her garden – “In



Figure 10.3 Statuette of Venus preparing for bath, Oplontis, Villa A, Torre Annunziata.



Figure 10.4 Flora, Villa Arianna, Stabiae, fresco now in Il Museo Archeologico Nazionale di Napoli.

the fields that were my dower, I have a fertile garden ... which my husband filled with noble flowers,"⁹² and we find that many of her flowers represent the mythological stories of their origins treated by Ovid in the *Metamorphoses*.⁹³ Newlands suggests: "Flora's artistry is metapoetic, for her *artes* are specifically associated with the activity of the writer."⁹⁴ Ovid significantly ends the episode with a *sphragis* (a self-identification of the author) and an appeal to Flora for the lasting survival of his poem.⁹⁵

In Latin literature the erotic associations of flowers and garden imagery are widespread. Gardening and georgic imagery are also frequently used in metaphors for courtship, sex, and marriage.⁹⁶ In Ovid's *Metamorphoses* the final erotic episode in the poem is set in a walled-in garden of fruit trees. Vertumnus, a rustic Etruscan fertility god, attempts to seduce Pomona, an ancient Italian deity of fruit trees, by gaining entrance to her closely guarded garden or orchard (*pomaria*) in a dramatic situation resembling an amatory *paraclausithyron* (a scene in which a lover sings to the closed door of his beloved).⁹⁷ Ovid humorously exploits the erotic potential of the garden imagery and the story ends on an unusual (for this poem) note of the mutual attraction of these two similar natural deities. Ovid may indeed be tapping into contemporary Augustan idealizations of Italy's agricultural past, and having fun with them.⁹⁸

In other passages the erotic potential of the garden setting is exploited for comic purposes as well. In Petronius' *Satyricon* we find a scene set in Croton in which a woman named Circe attempts to seduce the narrator Encolpius (appropriately here going by the name Polyaeus, "much-praised,"

a Homeric epithet for Odysseus) in garden settings. They first have an unsuccessful tryst in a plane tree grove (*in platanona*) appropriately set near a temple of Venus.⁹⁹ The literary implications of their names give the scene a mythological epic coloring, and a short hexameter poem specifically recalls the sacred marriage of Hera and Zeus in Homer's *Iliad*, which also took place on the grass and caused flowers to bloom spontaneously.¹⁰⁰ A second attempt at seduction seems to take place at a garden at Circe's house, which is similarly described in a hexameter poem as a typical *locus amoenus* with plane trees, laurels (metonymically represented by Daphne, recalling her erotic pursuit by Apollo), clipped pines (*circumtonsae ... pinus*), streams, shade, and flowers.¹⁰¹ Despite the stated aptness of the physical setting for eros (love, desire),¹⁰² the impotent narrator Encolpius/Polyaeus again fails. Ekphrases of gardens appear also in the Greek romances of the Second Sophistic by Achilles Tatius and Longus (their dates are roughly the second half of the second century AD). Those of Longus in his *Daphnis and Chloe* have been shown to play an important role as erotic and aesthetic domains.¹⁰³

Horticulture and Poetic Self-Reflexivity

In poetic texts, both Greek and Latin, buildings and landscapes figure importantly in ekphrases as self-reflexive "spatialized models of the text itself."¹⁰⁴ The shared imagery of poetry and gardens in such features as birds, bees, honey, nectar, and flowers encouraged the association between poetic activity and gardening.

Flowers (*flos/flores*) serve as a metaphor for stylistic ornament in Latin rhetorical treatises. The style entitled *floridus* is associated with epideictic oratory, which exhibited an excessive use of rhetorical embellishment, but was also typical of poetry.¹⁰⁵ The weaving of garlands (*coronae*) of flowers is a common metaphor for the composition of poetry and poetry books.¹⁰⁶ The first-century BC Greek poet Meleager entitled his anthology of Hellenistic epigrams a *Garland*, and in an introductory poem he enumerates the other poets in the collection and provides each with a flower or other vegetable symbol to be woven into the "Garland."¹⁰⁷

Vergil's description in *Georgics* 4.116–48 of an old man of Tarentum and his garden is perhaps seminal to the development of the garden as a metaphorical representation of poetry. Containing one of the most famous and simultaneously most difficult to interpret garden passages in Latin poetry, Vergil's description has received a great deal of critical discussion that reveals the multivalent terms in which gardens may be understood. The passage is cast in the form of a *praeteritio* – offering gardens as a possible, but not currently feasible, topic for treatment in this agricultural poem – thus creating a tension between the passage and the rest of the poem.¹⁰⁸ Columella, as we have seen, was to later pick up on Vergil's omission: "Vergil left these topics to be treated after himself by us."¹⁰⁹ The digressive and ekphrastic nature of Vergil's passage has called into question its function in, and implications for, the poem as a whole. Vergil recalls having seen (lines 125–7: *memini me ... vidisse*) in the southern Italian town of Tarentum the humble, but productive, garden of an unnamed

old man from Corycia (Cilicia). On his few and unpromising acres of land this settler planted a humble garden of herbs, flowers, vegetables, and fruit trees, with which "he matched in contentment the wealth of kings."¹¹⁰ The emphasis seems to be primarily on the productivity of the garden, which provides the gardener with a modest self-sufficiency and contentment. The garden supplies "unpurchased delicacies" for his table, while the flowers, and linden and pine trees,¹¹¹ attract bees and their honey.¹¹² The Corycian also plants trees: elms in rows (presumably for supporting grape vines), pear, plum-bearing blackthorns, and plane. His horticultural activities seem to offer an alternative to the conventional agricultural pursuits that form the subjects of the first three books of the poem (crops, livestock, vineyards: "but the land was not rich enough for plowing nor was the ground suitable for a flock, nor favorable for wine-growing").¹¹³ The image of the garden is clearly a positive one of frugal contentment and a harmonious relationship with nature; absent from this vision are the *improbis labor* – "relentless toil" – and failures of the earlier part of the poem.¹¹⁴ Through his effort the old man has made this unpromising land (*nec fertilis*) productive. The identity of the old gardener, *Corycius senex*, has been debated since antiquity and the possibilities draw upon many of the different associations of gardens, ranging from the Pythagorean or Epicurean philosopher-sage to the ancient commentator Servius' suggestion of an actual Cilician *colonus* settled by Pompey.¹¹⁵ The image clearly taps into the *topos* of "the old man in the garden" that seemingly goes back to Laertes depicted in his orchard in Homer's *Odyssey* (24.205–344). Cicero's portrait of the virtuous old

Cato engaging in horticulture, which we considered earlier, reflects this tradition.¹¹⁶ Many have seen this idyllic garden as representing Vergil's intensely personal aesthetic ideals of privacy, imagination, and self-sufficiency in the creation of his poetic world.¹¹⁷ Kenney remarks that in this "completely idealized picture" the commercial realities of horticulture are passed over (but referred to in *dapibus* *inemptis*: "unpurchased feasts").¹¹⁸ For some the garden is realistic, for others almost wholly ideal.¹¹⁹ The combinations of flowering plants, which evidently transcend seasonal limitations, may be deliberately fantastic, and the plane tree, here offering shade for a party of drinkers, is redolent of the pleasure garden and of the literary and philosophical associations of the *locus amoenus*.¹²⁰ The old man's skill in arboriculture seems exaggerated.¹²¹ The elms he plants are already mature, the pear tree is already hardened, the fruit trees already bear fruit, and the plane tree provides ample shade. The garden has been interpreted as a symbol representing a multitude of the possible associations of the garden: embodying the philosophical ideal of self-sufficiency;¹²² a model of the Roman *colonus* as the traditional "farmer-hero";¹²³ and "a paradigm for the exclusive world of the poet."¹²⁴ Clearly, the image in many ways represents an intensely personal vision. A number of recent interpretations have suggested that a complex literary tradition lies behind many of the elements in Vergil's description, arguing that the garden serves as metapoetic symbol of Vergil's poetic task and as a statement of his literary affiliations, especially with Hellenistic poetry.¹²⁵ The mention of memory at the opening of the passage (*memini*, line 125) conveys a

strong suggestion of poetic allusion.¹²⁶ The parallels between the poet and gardener encompass their disposition of material in an orderly fashion (note that the Corycian sets out elm trees in rows: *in versum*).¹²⁷ It is the powerful poetic ideal of harmony with nature, of privacy, and self-sufficiency embodied in this Vergilian garden to which many later poets will respond.¹²⁸

Horace, too, frequently uses natural landscapes and images to characterize his poetry, but less often gardens than the idyllic and traditional *locus amoenus*, an ideal poetic setting characterized by springs of water, shade, trees, flowers, and a certain numinous atmosphere that goes back to Greek poetry.¹²⁹ Clearly, many Roman gardens and villa estates strove to evoke precisely such an ideal landscape, which was similarly identified with poetry and philosophy. But, to identify these natural settings in literature with "gardens" is, I think, to blur the two categories.¹³⁰ Most famously, Horace frequently presents his Sabine farm as an ideal setting for the production of poetry,¹³¹ but it is only in his second book of *Satires* that he briefly mentions a garden located there (in a mock description of the estate's humbleness).¹³² Horace evokes the traditional association of *otium* (leisure) and literary and philosophical pursuits in such agreeable natural settings ("this sweet refuge, if after all you can believe it, so charming").¹³³ The importance of natural imagery to Horace's definition of his poetics is also seen in his frequent use of the flower garland as an emblem for his poetry.¹³⁴

The *Moretum* may offer the most direct response to Vergil's ideal garden in the fourth *Georgic*. This anonymously authored, post-Augustan hexameter

poem consists of an account of the harsh day of a poor peasant, Simulus.¹³⁵ He gets up, lights his fire, prepares his food (bread and a sort of cheese pesto [*moretum*]), and goes to work in the fields. An ekphrasis of significant length (lines 60–84, almost one quarter of the 122-line poem) is devoted to the description of his kitchen garden, on which he relies for food and some income. The garden is again modest in size, but productive (“tiny in extent but fertile and richly stocked” [trans. Kenney]),¹³⁶ thanks to Simulus’ skill and industry. Introduced in the manner of an epic ekphrasis (“There was a garden ...”),¹³⁷ the passage contains a catalog of vegetables growing in the plot. Scholars have seen in this passage a parody of the type of learned catalogs expected in epics of the Alexandrian tradition. Among the list of cabbages, beets, and such, the leek’s name is etymologically glossed, lettuce is ennobled by a quasi-golden line, and the gourd is described in Vergilian language.¹³⁸ Simulus, unlike Vergil’s *senex*, is so frugal (“nobody could have been narrower [tighter] than he”)¹³⁹ that he sells most of the produce from his garden at the market.¹⁴⁰ There are no flowers in this garden – no trace of the idyllic here. The stark “realism” of the sordid subject matter of the poem contrasts with the sophisticated literary treatment. On the one hand, Simulus and his self-sufficient garden seem to represent the conventional figure of the ideal rustic independent farmer of Roman myth (“he lacked nothing required by a poor man’s needs”).¹⁴¹ On the other hand, this sort of humble or squalid realism, which allowed for a virtuoso display of everyday details, is typical of Alexandrian and later Roman poets who followed this learned tradition.¹⁴² Some understand the poem

as a parody of this literary genre;¹⁴³ others see the poem as exposing the grim reality of Simulus’ existence of rural poverty and thereby challenging Vergil’s idyllic vision.¹⁴⁴ A number of scholars have further suggested that the garden in this work, again, serves as a metaphor for the poet’s own activity of writing the poem, representing its varied style and the skilled disposition of material (“he was expert in ordering the different plants”),¹⁴⁵ and its *labor*.¹⁴⁶

Another work of the Vergilian Appendix, the *Copa* (“The Innkeeper” or “Barmaid”), offers a different kind of garden in its depiction of a tavern garden.¹⁴⁷ In this brief poem Surisca, the *copa*, issues an invitation to a passerby to join her in enjoying the pleasures of her tavern (*caupona/taberna*) and garden. She is foreign¹⁴⁸ and this, combined with her skill in dancing, her drunkenness (*ebria*), and her occupation, suggest that her offer is erotic in nature (*lasciva*).¹⁴⁹ Those of old-fashioned morals, who might disapprove of such an establishment, are told by her to go to hell.¹⁵⁰ The garden boasts ornamental plantings (*topia*),¹⁵¹ cool bowers of shady reeds,¹⁵² a babbling stream, garlands of flowers, fruits, nuts, and vegetables, and shady vines.¹⁵³ The garden recalls the literary *locus amoenus* in its details of shade, wine, flowers, stream, and even a nymph. The echoes of Vergil’s *Eclogues*,¹⁵⁴ along with allusions to other authors, underline the literary nature of the description. A statue of Priapus with his enormous phallus¹⁵⁵ and small huts for privacy¹⁵⁶ underline the erotic allure of the garden. The low status of the *copa* and the everyday world of the tavern are in opposition to the literary description of the garden, creating an effect similar to the *Moretum* of a sophisticated

play with a mode of “realism”¹⁵⁷ and a piquant view of a low social environment.¹⁵⁸

GARDENS, STATUS, AND LITERARY CULTURE IN THE EMPIRE

It is in the works of Statius and Pliny the Younger that we find some of the first full-scale literary descriptions of actual ornamental gardens. These authors use garden descriptions as encomiastic representations of their owners, and their texts reflect the changed circumstances of leisure and the pursuit of literature during the Empire. We see in their writings a new emphasis on domestic activities, both architectural and intellectual. It is possible that both authors were influenced by the long rhetorical tradition of the encomiastic ekphrasis of both gardens and the countryside. The garden description was a common sophistic theme and set piece found in the later Greek rhetoricians.¹⁵⁹ Statius and Pliny draw on many of the associations of the garden we have examined so far in order to represent an acceptable form of philosophical and intellectual leisure (*otium*), which is redefined to fit the new times as *docta otia*: “learned leisure.”¹⁶⁰ This leisure is distanced from suggestions of political disapproval or resistance, but at the same time reflects some of the political and literary limits imposed in the Empire.

Statius includes in his *Silvae* a number of encomiastic descriptions of the elaborate architecture and landscapes of his wealthy private patrons,¹⁶¹ which represent, in their laudatory and extensive descriptions of private domestic architecture, a new poetic departure.¹⁶²

Silvae 1.3 enthuses about a villa at Tibur (Tivoli) belonging to Manilius Vopiscus, which was built on either side of the river Anio (Aniene);¹⁶³ while 2.2 describes a colonnaded *villa maritima* owned by Pollius Felix located on the sea at Surrentum (Sorrento);¹⁶⁴ and 3.1 glorifies a newly constructed temple to Hercules belonging to the same villa as in 2.2. *Silvae* 2.3 celebrates Atedius Melior’s birthday by the narration of an aetiological myth explaining an oddly shaped plane tree in Melior’s garden. The tree stands as a reminder (*pignus memorabile*), right in Melior’s garden on the Caelian Hill, of a mythological tale of Pan’s pursuit of a nymph; as in Statius’ poem, this tree is destined to survive for a long time.¹⁶⁵ Statius’ patron is complimented by the mythical and literary animation and religious associations of his garden. Mythological touches throughout Statius’ poems poeticize and give an epic coloring to the estates of his patrons, thus echoing the use of mythological decoration in the garden paintings and sculpture of actual Roman villas for the creation of poetic and Hellenized “landscapes of allusion.”¹⁶⁶

Statius’ villa poems function as encomia of the villa owners; the qualities of the landscape and architecture allude to the virtues of the owners,¹⁶⁷ and they serve as symbols of their owner’s character, culture, and power.¹⁶⁸ Statius’ patrons practice landscape architecture on a grand scale. The ornamental features of these pleasure gardens that Statius singles out are often precisely those which we saw condemned in moralistic writings as unnatural perversions of nature. These include building over water,¹⁶⁹ trees preserved in the middle of houses,¹⁷⁰ the leveling of hills,¹⁷¹ plane trees,¹⁷² and baths on the water.¹⁷³

A duality in the poems, especially in *Silv.* 2.2 and 3.1, is between the untamed state of nature in the past and her present cultivated improvement: Pollius has changed *feritas inamoena* ("unpleasant wilderness") into *voluptas* ("pleasure").¹⁷⁴ In Statius' villa poems his patrons' landscaping is described in terms of military domination over a grateful subject.¹⁷⁵ Nature's servitude (*nobile servitium*)¹⁷⁶ is exemplified in the retreat of rocks and mountains from Pollius' villa. Nature's cooperation with and even enjoyment of these alterations support the reading that Statius' patrons are portrayed as benefactors, not transgressors, of nature.¹⁷⁷ The mutations of nature in the private landscapes of the *Silvae* stress paradox and pleasure. The pervasive play in these poems with imitation and illusion, and the predominance of the theme of the competition between nature and art, parallels Statius' own mimetic task in these descriptive poems.¹⁷⁸ The luxury and extravagance of these estates reflect the aesthetics of

grandeur embodied in the poetry of the *Silvae*.¹⁷⁹ The significant aspect of the plane tree commemorated in 2.3 is its appearance of artificiality (*ingeniosa*: line 59) and the illusion created by its reflection in the adjacent water. It is a *miraculum naturae* ("a marvel of nature") of the sort this age enjoyed collecting – Pliny has a list of marvelous plane trees at *HN* 12.9. Statius praises the landscape of Vopiscus' villa as "an enchanted scene beautiful beyond human art,"¹⁸⁰ but at Pollius' villa nature has learned new tasks.¹⁸¹ A seaside villa landscape similar to that of Pollius Felix is depicted on a wall painting from Pompeii (Figure 10.5).

Statius, mindful of the traditional moralizing critique of such estates, is careful to qualify the lifestyle of his wealthy patrons as one of cultivated and philosophical leisure, which is removed from a luxurious existence.¹⁸² The *voluptas* of their estates is instead associated with the Epicurean philosophy espoused by both Pollius Felix and Manilius Vopiscus.¹⁸³



Figure 10.5 Maritime villa, Naples Museum, fresco.

Epicurus himself, claims Statius, would have preferred Vopiscus' estate to his own garden at Athens.¹⁸⁴ The qualities most stressed in both landscapes and patrons in the poems are those of quiet and peace.¹⁸⁵ Villa culture makes possible the *otium* necessary for the literary studies that both poet and patrons pursue. Statius' stress on his patrons' Epicurean sympathies may be understood as a mark of their cultural pretensions, but it also suggests that their withdrawal is politically acceptable, indicating acquiescence rather than protest in the currently dangerous political regime under Domitian.¹⁸⁶ The domestic activities on these estates symbolize as well an investment in the cultural – especially literary – rather than political realm of influence. The association of gardens and political withdrawal is again one that was seen earlier. An especially apt parallel with Statius' patrons is the great Augustan literary supporter Maecenas, praised in the panegyric *Elegiae in Maecenatem* for having rejected ambition in favor of his luxurious gardens: "he reclined in his luxurious gardens cultivating the Pierides (Muses) and Phoebus."¹⁸⁷

It is likely that Pliny the Younger was motivated by Statius' literary innovation to include two extensive descriptions of his own villa gardens in his published collection of letters. In *Epistle* 2.17 (published around AD 104/105) Pliny's maritime villa on the coast of Laurentum near Ostia is described, and in *Epistle* 5.6 (written and published a few years later) he describes his larger porticoed villa in Tuscany.¹⁸⁸ These self-stylized portraits present Pliny's own lifestyle as one of private and cultured *otium* very similar to that depicted in Statius' villa poems. Pliny positions his villas in ideal landscapes,¹⁸⁹

and his praise of "this convenience, this pleasantness" of the Laurentine villa¹⁹⁰ echoes Varro's earlier villa ideal of combining productivity and pleasure, and evokes the literary ideal of the *locus amoenus*.¹⁹¹ In these two long villa letters Pliny is too intent on presenting a life of leisure to dwell at any length on the productivity of his estates, despite the fact that such landholdings would have comprised the main basis of his wealth.¹⁹² He does mention an *apotheca* (probably for wine storage) and a *horreum* (for storing grain) at the Laurentine villa.¹⁹³

Elsewhere we learn that this estate, as opposed to those in Tuscany and Comum, was not a major source of income, but was used mainly for pleasure.¹⁹⁴ Pliny says that the mulberries and figs do well here, but does not detail the produce of his fertile and rustic kitchen garden (*hortus pinguis et rusticus*).¹⁹⁵ It is probably significant, however, that this garden seems to have been prominently positioned near his entrance to the Laurentine villa, thus advertising the estate's adherence to traditional ideals of productivity.¹⁹⁶ Pliny is clearly more interested in the artistic presentation of the villas' cultural symbolism and his own role as architectural and literary author of his own estates. He presents the surrounding natural landscape of his Tuscan villa as a panorama to be enjoyed from the vantage point of his estate, like a painting: "you will think you are looking not at a real landscape, but a painted scene of extraordinary beauty."¹⁹⁷ They provide the pleased owner with a spectacle of productivity.¹⁹⁸

Pliny prides himself on his own role in the layout and design of his estates (Figure 10.6).¹⁹⁹ In both letters the villas' grounds are extensively described. In

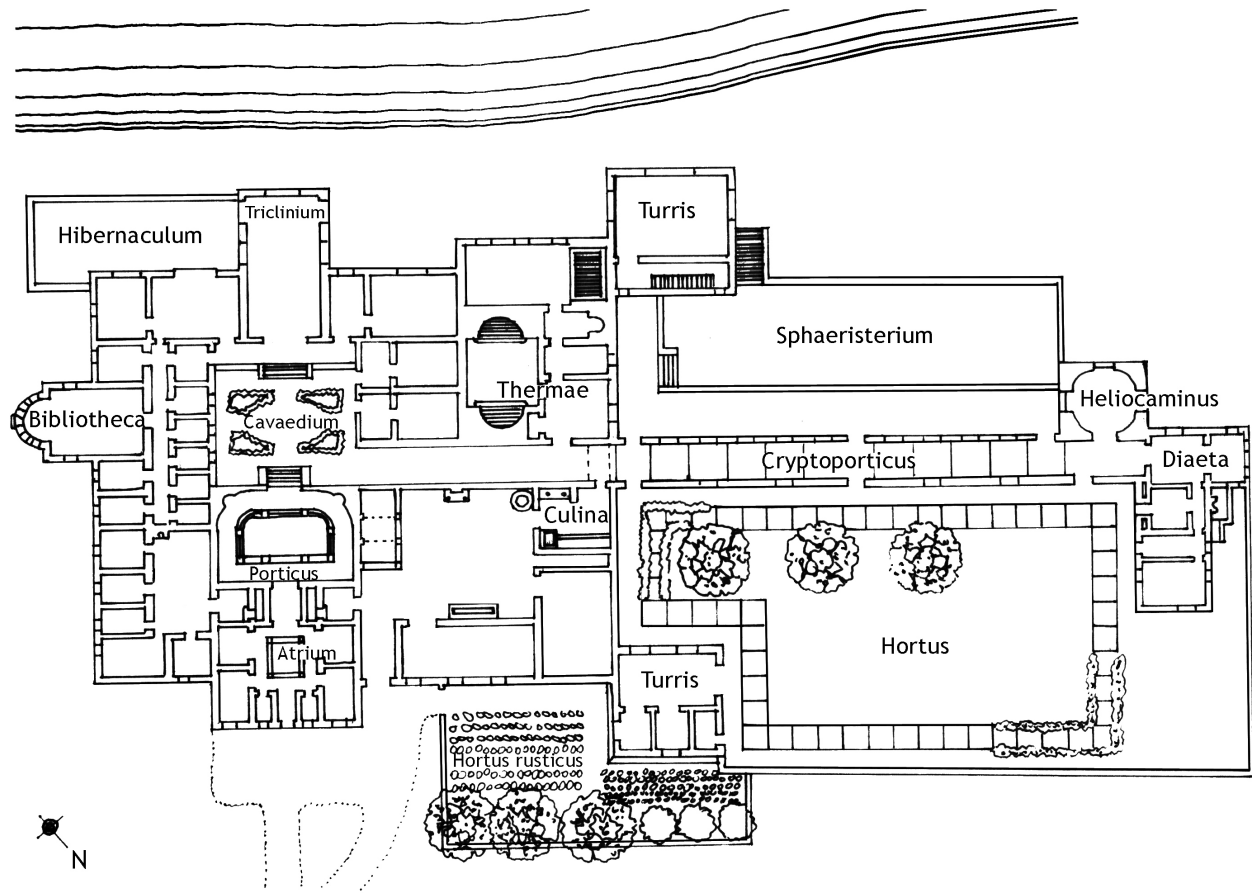


Figure 10.6 Pliny's Tuscan villa, plan, after Du Prey 1994, 84.

Epistle 5.6 twenty-one of the thirty-seven descriptive paragraphs are devoted to the villa's locality and grounds; in 2.17 ten out of twenty-seven. The most characteristic feature of Pliny's villa descriptions is his emphasis on the views of landscape framed by the architectural features of his house and the interdependence of garden and architectural elements.²⁰⁰ As in Statius' poems and Roman villa wall paintings, Pliny's descriptions celebrate a domestic context in which architecture has imposed order on the landscape and framed nature into a series of perfect views (cf. Statius' praise of Pollius' villa: "Each room has its own delight, its own particular sea, and across the expanse of Nereus, each window commands a different landscape").²⁰¹

Famously, Pliny mentions few interior furnishings of his villas (besides, significantly, some books and bookshelves),²⁰² gives no details about the decorations of the rooms (except one small room containing a garden painting),²⁰³ and describes no sculptures or artwork either inside or outside. Pliny seems, in fact, to have had little interest in sculpture for his private use (as opposed to public), thus forming a striking contrast with actual villas such as that at Oplontis near Herculaneum where numerous garden statues have been found.²⁰⁴ One gathers that topiary for Pliny perhaps replaced the need for statuary. Such *nemora tonsilia* represent a rather new fashion, introduced, Pliny the Elder tells us, by Gaius Mattius during the reign

of Augustus.²⁰⁵ Pliny takes care to emphasize the elegance of his estates, while correspondingly underlining their lack of excessive luxury.²⁰⁶ The lavish features of Pliny's estates are instead transferred to his elaborate ornamental gardens and their formal architectural features.

While in his villa descriptions Pliny reports only the orientation of the rooms, he specifies more fully the layout and plantings of his gardens. Certainly it is true that Pliny can allow himself more detailed description of his plantings than the decorations of his rooms, which could attract moral opprobrium, but it is in the layout of the estates' gardens and garden architecture that Pliny can most forcefully articulate the imposition of his personality on the landscape. Pliny's description of his estates and gardens in *Epistles* 2.17 and 5.6 are elaborate and notoriously difficult to interpret because of his lack of precision and his use of problematic technical vocabulary, some of which he seems to have coined.²⁰⁷ The many Greek terms he uses display his horticultural erudition and indicate that the architectural features of his estate "belong to the same lofty tradition as literature."²⁰⁸ The grounds are characterized by extensive use of topiary and shrubbery, and a close relationship between garden architecture and plantings.

In Pliny's landscapes all is enclosed and artificiality is prized. Pliny frequently expounds on the respective contributions of art and nature to the pleasures of his estates. His many views include both natural and artificial landscapes.²⁰⁹ As one approached the entrance of the Laurentine villa, one passed through the natural landscape, then the functional and formal gardens.²¹⁰ We have seen above that he

compares his Tuscan vista to a painting, and elsewhere in the letter he claims that a view of a flower-filled meadow is no less pleasing than his formal gardens: "outside is a meadow, as well worth seeing for its natural beauty as the formal garden I have described."²¹¹ Outdoor terraces, porticoes, and promenades blur the distinction between interior and exterior, and nature is simultaneously included and excluded. His garden settings often sound like rooms without ceilings. Trees, shrubs, and green-floored groves are extensions of a wholly artificial architecture, and are shaped accordingly. As Purcell explains, "the process was assisted by the widespread theory that the trabeated architecture of the orders itself derived from primitive adaptations of living or recently culled natural materials."²¹² Pliny's pride and one of the most remarkable features of the Tuscan estate was a hippodrome, which, he claims, greatly surpasses the design and beauty of the buildings.²¹³ It was a riding ground imitating the grand form of public architecture, but here not used for riding; rather, it was entirely landscaped with intricate plantings geometrically laid out around several circuits of pathways for walking. It was open in the center and planted round its edges with ivy-covered and linked plane trees alternating with box shrubs, which functioned as a sort of natural portico. Several shaded pathways along the sides were outlined with clipped box hedges, while roses were planted at the top curved end of the hippodrome; then followed box hedge topiary of many shapes including the name of the owner and the gardener, and box shrub obelisks, which alternated with fruit trees. Set off by low plane trees and behind them acanthus beds, the open

space in the center was meant to evoke the rural countryside either by topiary or by its simplicity and by its “naturalness” to contrast with the artifice of the rest of the plantings: “suddenly in the midst of this ornamental scene is what looks like a piece of rural countryside.”²¹⁴ Numerous fountains fed by streams ran throughout the garden and were controlled by hand.²¹⁵ At the curved end of the course, cypress trees created shade for an outdoor dining area with a semicircular white marble dining couch (*stibadium*) under a vine-covered pergola of four columns of green Carystian marble.²¹⁶ Facing this seat was a marble basin on which were floated dinner dishes shaped like birds or boats, and a fountain spouting jets of water. Closing the perspective was a vine-covered room (*cubiculum*) of white marble containing an alcove, bed, and chairs. In this building, says Pliny (5.6.39), you can lie and imagine you are in a wood, but without the risk of rain.

Pliny prizes and praises the peacefulness and seclusion of life at these estates in terms of the traditional contrast of the villa/countryside with the travails of public life in the city.²¹⁷ There is a striking lack of human activity in these landscapes. Pliny’s villa idylls eschew the practical and business aspects of his estates in favor of the master’s use of its pleasures. Like Statius and others, Pliny stresses the role of villas as personal places of refuge and highlights the importance of his literary activities pursued there in contrast to engagement in public life. What the estates provide Pliny is above all peace and quiet, the chance to take off the toga and indulge in his studies. For Pliny, the *otium* his villas provided is more appropriately *studiosum*, devoted to the care and

cultivation of his mind, body, and work (“I cultivate myself through studies”).²¹⁸ Pliny revised his compositions and took numerous walks on the many different pathways of his gardens; he read Greek and Latin aloud for the sake of his digestion, he exercised, bathed, dined with his wife and friends, and, another letter reveals, received the complaints of his tenants.²¹⁹ Absent from Pliny’s villa letters is mention of the philosophical associations of villa life and gardens. While he mentions a gymnasium at the Laurentine estate, there is no hint of philosophical pursuits.²²⁰ The villa letters localize and distinguish Pliny’s private *studia* from his civic and public *officia*. Pliny’s letters also confirm the importance of the pursuit of literature as a class responsibility.²²¹

When Pliny returned to the villa theme in *Epistle* 5.6, he is more explicit about his literary aspirations for these monumental letters, among the longest in the collection. While these two letters have been viewed as exercises in rhetorical landscape description (*topographia*),²²² Pliny himself suggests at the end of 5.6 that they rather be understood in the tradition of poetic ekphrases, as descriptions of works of art, such as Homer’s description of Achilles’ arms and Vergil’s description of Aeneas’ shield.²²³ As Bergmann and others have more recently suggested, instead of dwelling on the “realism” of their archaeological and architectural details, we might consider the properties of Pliny’s villas to be understood within the ideological and symbolic code we have been considering in this chapter.²²⁴

Pliny’s evocation of the tradition of poetic ekphrasis suggests the estates may also be read as models of the text itself. I would suggest also that the metaphorical

nature of real Roman villas, the way in which the artful use of associative images evoked by inscriptions, statues, paintings, plantings, and pools stimulated mental associations, encourages such a reading and makes the villa setting such a potent one for self-representation. Pliny turns his homes into the images of his writings, the *Letters*,²²⁵ and he validates his life by reference to art, and vice versa. As in Statius, Pliny's villa descriptions reveal an association of domestic architecture with literary fame and immortality. The estates are even signed: at his Tuscan villa the box hedges spell out the names of Pliny and his gardener (*topiarius*). The emphasis on the *variatio* of the landscapes and the layout (*dispositio*) of the estates coincides with rhetorical precepts and with the composition of his *Letters*. Literary aspirations are theatrically and metaphorically represented in the landscape: in another letter we learn further that on the shores of Lake Como Pliny has two villas, one called *tragoedia* because of its lofty position, the other *comoedia* because of its situation on the beach ("because the one seems to be raised on the boots of tragic actors, the other on the low-heeled boots of comedy").²²⁶ Through these architectural and horticultural monuments, Pliny measures and defines his own monumentalizing letters.

A comparison with Statius' and Pliny's contemporary, Martial, is instructive. While Martial can produce *encomia* of domestic architecture if required,²²⁷ and clearly traveled the villa circuit, as did Statius, the tone in his *Epigrams* generally has the greatest affinity with the literary genre of satire, which drew on the traditional social critique of excessive luxurious estates.²²⁸ In one epigram Martial

indulges in his moralistic tone to heap censure on precisely the sort of villa described by Pliny and Statius, characterized by unproductive plantings of myrtle, planes, clipped boxwood, and high towers overlooking laurel bushes, and contrasts this with a productive estate which possesses a fertile *hortus* ("you possess nothing but elegant starvation").²²⁹ It has been pointed out, however, that this worthy villa of his friend Faustinus is located in the unlikely locale of the sea resort of Baiae.²³⁰

Martial also praises villa visits, which provide him with the leisure to write.²³¹ More often, Martial speaks of his own estates. These descriptions are, however, deeply conflicting and clearly form a part of the careful self-fashioning of his persona in the *Epigrams*, especially as a mendicant poet, and they also serve as implicit requests for further patronage. He mentions frequently his small estate (*rus minimum*) at Nomentum (near modern Mentana), but as Saller cautions, Martial's epigrams give us little solid evidence about its size or productivity.²³² In *Epigram* 9.18 the mention of his country estate entails a request to the emperor for the privilege of tapping into the Aqua Marcia. He often speaks of the estate in terms of its garden produce. In a couple of poems Martial offers dinners of humble, but honest, garden produce to his guests,²³³ but elsewhere he complains the estate is so small that a cucumber cannot lie straight in it.²³⁴ When he presents his humble estate in a positive light, Martial draws on conventional, and especially Horatian, ideals of country life as far from urban duties and as suited to philosophical ideals of living, as well as the contrast, so common in satire, between city and country.²³⁵ Statius described his

estate at Alba Longa in the same Horatian and Epicurean terms as a small country place.²³⁶ In *Epigrams* 10.92, when Martial finally sells his estate at Nomentum, he characterizes it in terms of ancient Roman religiosity associated with trees and the countryside and the myths of fauns and nymphs so popular with Statius.

While he can speak of his enjoyment of the *Nomentani otia ruris* ("the leisure of my Nomentan country estate"),²³⁷ Martial needed more. His wish for an adequate estate is directly connected with his desire for the *otium* necessary for poetic composition, such as he says Horace and Vergil received from Maecenas.²³⁸ Juvenal in his seventh *Satire* characterizes the fortunate, independently wealthy poet Lucan as reclining in his gardens full of statues. When Martial finally receives the estate of his dreams in Spain he enthuses about its woods, springs, shade, water,

meadows, rose beds, fish ponds, and aviary, and says that he would choose it over the gardens of Alcinous, the *locus classicus* of the ancient literary garden ideal.²³⁹

As a final example of a literary garden, perhaps stretching my earlier definition, we can consider what appears to be an "anti-garden" in Seneca's *Thyestes*.²⁴⁰ Here Seneca describes an ominously dark grove (*nemus*) with ill-omened and pointedly uncultivated trees, whose location in the center of the royal palace suggests that it represents "a perverted counterpart of the inner courtyard of a large Roman house."²⁴¹ This grove represents the source of evil within the house of Pelops as well as the pervasive theme in the play of the violation of order. Here an uncultivated garden symbolizes the gothic and disjointed world of the play in which the boundaries of the civilized and the barbarous have broken down.²⁴²

Chapter 11

FRESCOES IN ROMAN GARDENS

Bettina Bergmann

THE BEST-PRESERVED GARDEN representations of the Roman world survive in first-century AD Pompeii and Herculaneum and are well known, thanks to the publications of Wilhelmina Jashemski.¹ Subsequent studies have tended to repeat Jashemski's examples and observations yet have treated the garden frescoes as a distinct thematic category of Roman painting rather than as integral parts of the built spaces that they embellished.² The present chapter takes into account the ways in which garden paintings would have been experienced within their architectural environments. Although the focus continues to be examples in Campania, sporadic finds from throughout the empire indicate the longevity of the theme into later periods.³ As shall become clear, each garden scenario is unique, but the surviving murals, whether in small backyards of humble houses or porticoes of wealthy villa estates, share a visual vocabulary and set of pictorial approaches. From the earliest to the latest examples, the central theme remains the human cultivation of nature.

By the first century BC, several modes of landscape art had become popular in public, funerary, and domestic contexts in Italy. Their origins lay in indigenous cultures as well as in contacts with eastern Hellenistic sites. By the late Republic, images show the influence of new techniques of mapping and horticulture. The most frequent subject painted in garden spaces is the garden itself. Murals imitated and supplemented the living plants, splashing fountains, and

statues just before them, thereby visually extending the physical space. Other, more unusual subjects began to appear in open green spaces of the early Empire: sea-scapes with distant harbors and islands, sometimes inhabited by pygmies; depictions of life-sized wild beasts on the attack; or larger-than-life goddesses and heroes, sometimes in a narrative scene.

The following treats garden paintings in two parts. Section I gives an overview of types of garden representations, from miniature plans to inhabitable, *trompe l'oeil* painted rooms. Section II presents the other main subjects on garden walls – landscapes, beasts, gods, and myths – which most often appeared in combination with illusionistic painted gardens.

REPRESENTING GARDENS: FROM MINIATURE PLAN TO VIRTUAL IMMERSION

Garden Plans

An excellent introduction to the design of Roman gardens and their representations is provided by a curious group of images on first-century AD walls. Modern scholars

have called the type *hortus conclusus*, a medieval term for an enclosed formal garden associated with the Virgin Mary. Similar to medieval images, the miniature *viridarium* has the form of an axonometric plan, but typically is unframed and floats on an ambiguous black ground. A well-preserved example is from the Villa Imperiale in Pompeii (Figure 11.1): a rectangular space enclosed by a high reed or wicker fence, shown in perspective on a black background.⁴ A wide opening, flanked by pergolas, marks the central axis on which is a large square pool with a fountain statue in the middle; two more arbors flank a pedimented back entrance. On each side of the main entrance are tall pillars supporting vases, and just inside the fence, along the front, grow regularly planted trees.

The same basic elements – a lattice fence or stone border, pergolas and gates, marble pools and fountains, statues and vases, formal plantings – survive in at least sixty miniature garden paintings and in countless combinations. Many, as in the Villa Imperiale, appear on the lower section of a wall, where their elevated perspective playfully undermines the solid support of a socle or dado; others are seen at eye level or overhead, in the upper zone of



Figure 11.1 Villa Imperiale, Pompeii, miniature garden fresco, ca. 15 BC. H: 12 cm, W: 35 cm. Boscoreale Antiquarium Inv. 21630.

decoration, where the aerial view contradicts the natural perspective of a spectator standing below.⁵ In the Villa Imperiale, this garden plan was painted in about 15 BC as one in a series decorating the black dado of the western portico, which stood between reception rooms and the living garden and opened to a view of the Bay of Naples. These diminutive painted precincts thus offered abstract versions of the formally planted spaces before them.

Such representations are not always miniature, nor do they appear exclusively in houses. For example, from Velleia, in northern Italy, are remains of a large and impressive painting that decorated the back wall of the colonnade of the town's forum. In this case, the image, instead of on a podium, is depicted immediately above an illusionistic projecting base on which rests a fictive column, a scheme typical of the first-century BC so-called Second "Architectural" Style (Figure 11.2).⁶ Despite its greater scale,

the same principles as the miniatures apply: an aerial view of two precincts (partially preserved corners confirm at least three sides) enclosed by yellow latticework fences. They are identical (three pedimental gateways and two apses) and flank a rectangular pool (identified because of the blue paint still preserved). As in the *viridiarium* painting from the Villa Imperiale, white marble craters adorn the top of the fences but there are no trees or plants that can be discerned. In the gateways are what seem to be marble statues of dancing figures, not unlike the statues of satyrs and fauns found in Pompeian peristyles, the most famous from the House of the Faun.

As a rule, no living humans inhabit these schematic *viridiaria*.⁷ The main subject is horticultural design itself as it developed in Italy at the end of the Republic and in the early Empire. That contemporary viewers appreciated such designs is attested by villa owners boasting about the whimsical confections in their

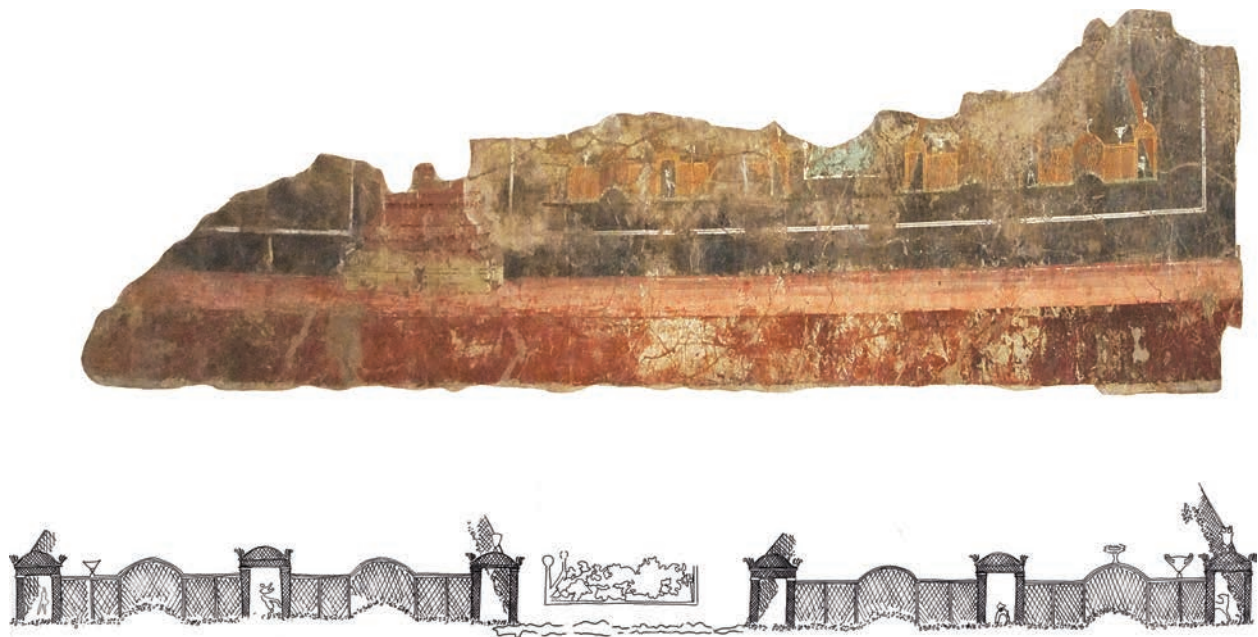


Figure 11.2 Portico of the Forum, Velleia, fragment of frieze, Parma Museum, and drawing.

gardens. One finds the same ephemeral wooden arbors and *aediculae* at human scale elsewhere on painted walls of the time. In the Boscoreale *cubiculum*, dated to the mid-first century BC, painted *pergo-lae* and grottoes appear on either side of

the actual window that once opened onto the villa's backyard and the lower slopes of Vesuvius; when the window was open, the fictive garden structures framed a live landscape outside (Figure 11.3).⁸ The blurring between painting and view remains a

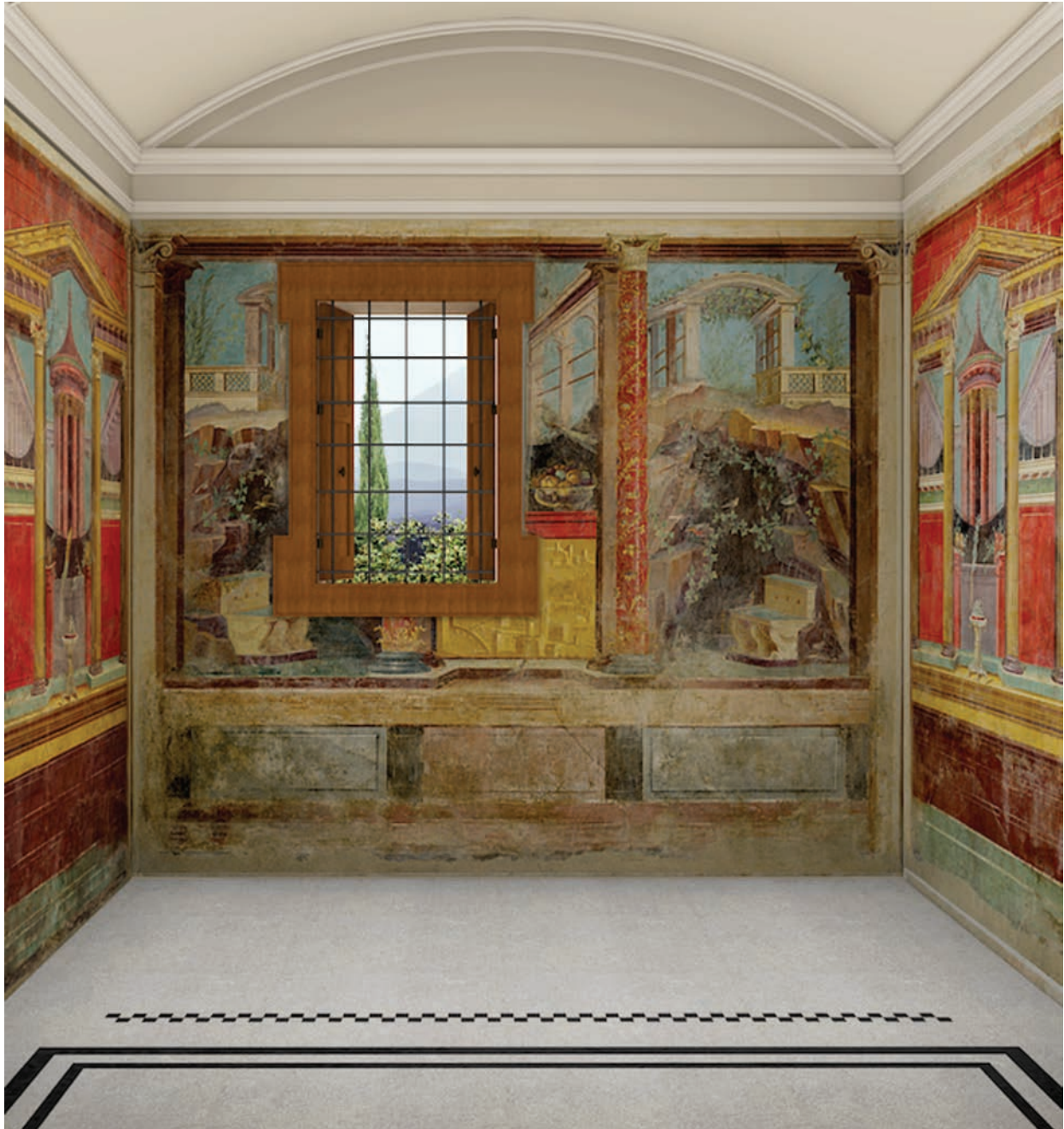


Figure 11.3 Villa of Fannius Synistor, Boscoreale, west wall, Cubiculum M, Metropolitan Museum of Art, NY, Computer Model.

pervasive theme in the visual and literary representations of gardens.

The remarkable aspect of the linear, axonometric garden plan is its minimalism. An outdoor space is reduced to a geometrical abstraction and offered to an omniscient eye. The pictorial device of the bird's eye view became popular in second-century BC Italy, when processes of colonization and centuriation imposed new grids upon the land, and the garden representations suggest that visual pleasure was found in the newly developing, inter-related forms of architecture, agriculture, horticulture, and floriculture. It should not surprise, then, that the linear layouts in paintings correspond to actual fences and planting beds found in excavations.⁹ An early first-century BC horticultural plot in the House of the Skeleton at Cosa was sectioned by paths, porticoes, and bedding pits.¹⁰ Similarly, the first-century AD House of the Chaste Lovers (IX.12.6–7) on the Via dell'Abbondanza in Pompeii revealed traces of a formal, interior garden with axially aligned paths, irrigation channels, and box hedges.¹¹ An especially exciting, recent discovery at the Villa Arianna at Stabia uncovered a large colonnaded green area defined by linear planting patterns.¹² The taste for "green architecture" is evident elsewhere in the later Empire, the best-known example in the west being the third-century AD estate in Fishbourne.¹³

An integral relation of garden and building also characterizes a related mode of landscape painting of the early first century AD, the so-called "villascaes." These small, illusionistic painted panels (*pinakes*) depict landscapes and seascapes marked by prominent engineering constructions and leisure architecture. Like the garden plans, the *pinakes* usually occur in pairs or

in series and are found on all parts of the wall: at eye level, on a dado below, resting on a cornice above, sometimes even overhead on a ceiling.¹⁴ Both pictorial modes – the aerial plan and the framed landscape – are represented on two walls of the *tablinum* of the House of Lucretius Fronto, painted in the first half of the first century AD (v.4.a/11: Figure 11.4A).¹⁵ Geometric garden layouts appear on black dadoes at the bottom of both the north and south walls. In both, birds perch upon an elaborate marble wall; white and purple flowers grow just inside, and symmetrical low (enclosure) walls flank a splashing fountain. Yet, as is so typical for Roman wall design, subtle variations gradually come to light: on the north wall, the marble wall recedes into a large, semicircular niche enclosing a circular urn fountain, while on the south wall a rectilinear, rather than a curved, niche surrounds a crater fountain (Figure 11.4B).

On each wall, the garden layout below forms just one of a multitude of perspectives. The focal point is a square, framed figural scene at eye level, around which all other elements fall into symmetrical patterns. The *pinakes* placed left and right of this central panel are framed and supported by metallic *candelabrae* (Figures 11.5A; 11.5B). Each *pinax* presents a lively, polychromatic scene where, against a blue sky, sunlight hits columns of porticoes, producing strong contrasts of light and dark; trees are bright green; the yellow, red, and white façades glitter with decorations; and figures move across a clipped lawn. But just as the painted garden enclosures on the dadoes offer variations on each other, the four *pinakes* (two on each wall) portray unique groupings of buildings and formal plantings.



Figure 11.4A House of Lucretius Fronto, Pompeii, v.4a/11, *tablinum*, south wall.

A



Figure 11.4B: House of Lucretius Fronto, Pompeii, v.4a/11, *tablinum*, south wall, detail of garden precinct on dado.

B

The *pinakes'* frames and presumed candelabrum supports suggest they are portable pictures, while the naturalistic landscapes lend the impression of views beyond the picture frames as though through windows. But how realistic are these settings? A painting from Pompeii now in

the National Archaeological Museum in Naples (Figure 11.6A) shows a formal garden with flat beds surrounded by box hedges in front of an impressive portico with a grand central entrance. Such a layout is recognized in the manicured garden of Villa A at Oplontis, which has a similar,

Figure 11.5A House of Lucretius Fronto, Pompeii, v.4a/11, *pinax*, south wall, *tablinum*.



A

Figure 11.5B House of Lucretius Fronto, Pompeii, v.4a/11, *pinax*, north wall *tablinum*.



B

although less impressive, architectural backdrop as the painting (Figure 11.6B). Likewise, the colorful, double-storied colonnades of the Oplontis seaside façade, seen against a backdrop of Vesuvius, may have resembled the previously mentioned *pinakes* from the House of Lucretius Fronto

(especially, Figure 11.5B) in which regularly planted gardens gradually blend into rows of orchards and vineyards on the hillside.¹⁶ Thus, the paintings appear to be influenced by actual architecture and settings, while enhancing and expanding these into idealized environments.



Figure 11.6A Fragment of fresco, landscape painting, Naples Museum, inv. no. 9406.

A



Figure 11.6B View of north-facing façade, Villa A, Oplontis, Torre Annunziata.

B

The framed pictures on walls may well reproduce real portable pictures of estates. Aulus Gabinius, tribune in 67 BC, is reported to have shown to the assembly a picture of a villa that the avaricious Lucullus was having built at Tusculum in order to excite public hostility against him. Cicero claimed, however, that Gabinius' own villa made Lucullus' seem like a hut.¹⁷ Even Cicero himself was not immune, for it seems Clodius attempted to attack him at court for having recently purchased a grand house.¹⁸ In spite of extravagant villas being used as fodder against political enemies, wealthy homeowners wrote with pride about their landscaped gardens and also the views of sea and land that they enjoyed from their estates. Cicero enjoyed looking from one property to another across the Bay of Naples and in the later first century AD Statius' descriptions of the marvelous sights at his patrons' villas seem to parallel painted scenes in the *pinakes*. Some authors even described these amenities in painterly terms. In the second century, Pliny the Younger invoked a view from his Tuscan villa that "will not seem real to you, but rather a painted landscape."¹⁹ But even though independent pictures of private villas must have existed, it is unlikely that the *pinakes* painted on the walls of Pompeian houses document specific properties. One need only examine the *pinakes* within the larger wall designs to recognize how muralists perpetually modified compositional patterns to harmonize with an overriding pictorial scheme. For our purposes, precisely because neither the landscapes nor the garden plans represent specific places, they can be seen to encapsulate elements of an ideal environment, one that could only be realized by an artist.²⁰

Two main conclusions may be drawn from the schematic garden plans and the framed *pinakes*. Both depict highly cultivated spaces where nature is ordered and boundaries are paramount. Regularly spaced trees and bushes of different species are framed by fences and by low walls (*plutei*) between columns of peristyles, while gutters, paths, and hedges further delineate the space. These principles of design are found in actual gardens and in the life-size painted illusions of gardens, to which we next turn.

Florescent Interiors: Facsimiles of the Real?

A few garden paintings adorn the interior walls of small *cubicula* and tombs. In particular, three painted rooms from the end of the first century BC and first century AD, one from a villa just outside Rome and two in Pompeian houses, transform the enclosed space into dazzling environmental illusions, where the viewer seems to be projected into one of the miniature precincts and stands surrounded by the same fences, shrubs, flowers, and birds. The idea of converting an interior into a fictive, outdoor space was not unique to the Roman era. Nilotic riverscapes in Egyptian tombs, volcanic coastlines in Minoan houses, trees and oceans on the walls of Etruscan and Paestum tombs, all share a desire to bring the outdoors inside.²¹ These examples do little to suggest that garden paintings in Roman Italy derived from imported Egyptian prototypes. In Egypt, as in the West, illusionistic techniques followed Hellenistic practices, which could be combined with local forms of representation.²²

The most famous interior painted garden, and perhaps the earliest Roman example, was found in a spacious, underground room (5.90 × 11.70 m) in the so-called Villa of Livia at Prima Porta on the Via Flaminia north of Rome (Figure 11.7). Now reconstructed in the Museo Nazionale Romano in the Palazzo Massimo in Rome, the subterranean space would have been reached by descending steps and seems to have been entirely enclosed except for a single door on the east wall, so that light entered either through a skylight in the barrel vault or emanated solely from lamps. The painted garden continues around all four walls, uninterrupted by corners, effectively negating the built shell. For a viewer in this dark, underground room, the first impression is of being immersed in a lush grove of flowering and fruiting trees swaying in a balmy breeze. With no humans depicted, nature exists for the present viewer alone.²³

Any initial sense of abandon in nature gradually subsides as it becomes clear that the abundant vegetation is tightly contained by a series of horizontal architectural borders, namely the same reed fences and marble balustrades of the miniature garden layouts. These borders orient the viewer in a zone apart from, and “outside,” the copious grove. Despite the illusion of wild abundance in this room, the life-size painted gardens follow the same formal principles seen in the geometric plans and architectural *pinakes*. Nature follows a rigorous organization with symmetrical dispositions of trees and equidistant plants. The arrangement was far from static, however, for the muralists animated the depicted space with subtle variations. Over time, the eye discerns nearly seventy distinct species of birds and more than twenty types of trees, shrubs, and flowers, every one carefully rendered in



Figure 11.7 Garden room of Livia from villa at Prima Porta, National Museum of Rome, Palazzo Massimo.

subtle detail. As breezes seem to emanate from the four cardinal directions, the synchronized movements of assorted birds and the simultaneous blooming of flowers and trees transcend any normal limits of season and place. This parallel world of nature may be contained, but it also is inaccessible. As the eye moves up toward the upper zones of the room, an odd border – the stalactite of a cave, dried leaves of an arbor, or fringe of a tent cover – places the flowering garden below in a paradoxical location. Just above this border intervenes yet another plane of reality, namely a stuccowork vault composed of blue, red, and white squares, an architectural element that reasserts the status of this space as an interior room.²⁴

Excavations of the Villa of Livia at Prima Porta between 1996 and 2000 offered intriguing insights into the larger context of the underground room.²⁵ Above ground, an artificial terrace supported a monumental “hanging garden,” apparently created in the Augustan period. The outdoor complex was as large as the interior living quarters (75 × 75 m) and featured a concrete, *triclinium*-shaped fountain, a 2-meter-wide *euripus*, and planting pots (probably for small trees). Rooms opening onto this space enjoyed views of the garden and beyond to the Tiber river, the city of Rome, and the Alban Hills. One wonders how the verdant garden frescoes in the cool room below might have complemented or competed with the planted precincts above ground.

A more pertinent question is why the patrons desired a fictive grove painted in fresco where living trees and bushes grew in abundance. Again, ancient villa owners themselves suggest an explanation. Pliny the Younger, writing over a century later,

delighted in the illusionistic frescoes of a special room in his spacious Tuscan villa. He noted the stone border, splashing fountain, leafy trees, and animated birds:

there is another chamber, also shaded by the plane trees’ greenness at close hand, made elegant by a thin marble socle, nor do its paintings which imitate branches and birds sitting in that foliage fall short of the beauty of the marble. In this chamber is a tiny fountain, in its jet an urn; around it many tiny trickles mingle together a most delightful murmur.²⁶

In another of his villas at Laurentum, Pliny wrote about walking through a “hippodrome” enclosed by borders as if it were an interior space with a “green wall” of successive plantings, an image that recalls the overlapping planes of bushes and trees painted in the subterranean garden room.²⁷

The closest parallels to Prima Porta are found in two houses in Pompeii that were painted a few decades later, in the early to mid-first century AD.²⁸ The small House of the Fruit Orchard on the Via dell’Abbondanza in Pompeii (1.9.5) boasts two tiny rooms with high ceilings, one off the *atrium* and the other farther inside the house off a central peristyle (Figure 11.8).²⁹ Each room was large enough for just one or two people at a time. As at Prima Porta, all four walls dissolve into an open-air, green space, but instead of transforming the room into one continuous illusion, the muralists seemed more interested in juxtaposing assorted outdoor viewpoints. The high walls of Room b are divided into four horizontal sections. Below, a black dado with plants presents an ambiguous, recessed area, above which rises the



Figure 11.8 House of the Fruit Orchard, I.9.5, Pompeii, three views of Room b.

ubiquitous yellow reed fence. Above this, slender white pillars impose a tripartite division on each wall. At the top, a delicate architrave acts as a ledge for marble vases, *pinakes*, and perching birds. Garlands and ornaments “hang” from the ceiling.

Room c creates quite a different impression, with brilliant green foliage against a black background (Figures 11.9A; 11.9B; 11.9C). In this room the recessed garden area begins higher up the wall, above the dado. Presented from a slightly elevated viewpoint, inside a carefully wrought lattice fence, twin marble water basins, and flowering bushes flank a marble stand supporting a bejeweled, golden *uraeus* (sacred to Isis). Above this recess, white columns, trees, and bushes seem to be located on top of rather than *behind* the fence. Each wall presents a symmetrical display around a featured tree: on the south wall, a lemon tree; on the north, plum; and above the entry, viburnum. On the back, east wall, a snake slithers up the trunk of a fig tree; oleanders grow immediately on either

side and a bit farther out, in the side panels, are strawberry trees.

Scholars have stressed the apparent flatness of these painted gardens, forgetting the original effect of the black walls which, when rubbed to a reflective polish and illuminated by flickering lamp-light, would have produced an illusion of indefinite, deep space. That both rooms were intended to be enjoyed by a reclining viewer is evident from the mosaic pavement marking the space for a couch in Room b and from the painted vault of Room c where, from below, a person could gaze upward into a canopy of vine leaves and bunches of ripe grapes adorned with Bacchic masks and objects (Figure 11.9D). Such overhead fantasies echo the delight of *al fresco* dining voiced by Latin authors and vividly represented in the late second-century BC Palestrina Mosaic, where revelers on couches engage in animated *convivium* under an arbor laden with clusters of purple grapes.³⁰ Similarly, across town in Pompeii, a mosaic vault in the



Figure 11.9A–C House of the Fruit Orchard, 1.9.5, Pompeii, Room c, details of dado.



Figure 11.9D House of the Fruit Orchard, 1.9.5, Pompeii, Room c, painted vault.

House of the Golden Bracelet (also known as the House of the Wedding of Alexander

[vi.Insula occid. 42]), simulated a trellis of roses.³¹ And another painted vault, found in a *cubiculum* of the House of Casca Longus (1.6.11) not far from the House of the Fruit Orchard, depicts lilies, roses, and other flowers drifting downward from a dark background, recalling Nero's custom of showering rose petals onto guests in his Golden House.³² The conceit of falling flowers and branches continues into the late Empire; the mosaic of the *Jonchée* in Caesarea simulates a later moment, after the sweet-smelling blossoms have landed to the ground, creating a soft bed of branches.³³

In Pompeii, the overhead pergola was not just a pictorial motif. Painters did not

need to look far for inspiration. Near the House of the Fruit Orchard, Jashemski discovered an orchard where masonry *triclinia*, shaded by wooden pergolas or the spreading branches of large trees, offered Pompeians a chance to immerse themselves in a fecund environment and to consume that environment through all the senses: taste, sight, smell, sound, and touch (1.22).³⁴ In this orchard grew apples, pears, figs, and cherries, varieties newly imported from more temperate climates and it has been suggested that the owner of the orchard may have been Felix, a *pomarius* (fruit seller), whose shop was just four blocks away on the Via dell'Abbondanza, and who probably harvested his own fruit nearby.³⁵ The plants and trees depicted in the garden rooms in the House of the Fruit Orchard – arbutus, myrtle, oleander, lemon, fig, cherry, and pear – thus could all be seen, smelled, and tasted in Pompeii by the first century AD.

The upper zones of the walls in the House of the Fruit Orchard bring to mind another fashionable natural collection that could be seen in gardens in these years, namely an aviary. Here a variety of birds meets the eye – egret, magpie, blackbird, white pigeon, dove, hooded crow, house sparrow – each precisely delineated as if drawn from illustrations in ornithological handbooks and based upon patient, protracted observation of the birds themselves. Not only diverse plants and birds, but also artifacts and artistic styles mingle in these small rooms. Egyptian statues of pharaohs and sphinxes are displayed next to Graeco-Roman marble reliefs depicting myths and the Bacchic realm.³⁶ Such objects once may have served cult worship, but seen among this novel, marvelous array of birds, plants, and trees, they

showcased a state-of-the-art cultivation in the early Empire, when Egyptianizing motifs and Nilotic landscapes became standard features in garden displays.³⁷

Without question the most important recent discovery of painted garden rooms has been the summer *triclinium-nymphaeum* complex in the House of the Golden Bracelet in Pompeii (VI.17 [Insula occid.] 42). Thanks to Jashemski's excavation of the planted area in front of it, this complex gives us a rare opportunity to examine a multimedia ensemble in detail. A watercolor rendering by Victoria I visualizes the dining area located at the rear of a three-story building over the west city wall that enjoyed a sweeping view of the bay (Figure 11.10). Here were found floor and ceiling mosaics, marble inlay, garden murals, elaborate waterworks, and evidence of living plants. The garden followed a geometric design with slightly raised borders of various shapes: an oval bed with mounded borders and trapezoidal beds at each corner, perhaps once defined by box hedges. The centerpiece of the complex was an apsidal mosaic fountain with steps over which water flowed into a pool between the dining couches, submerged, and then rose in a jet before emptying into a rectangular pool with a semicircular extension in front. Water sprang from a jet in the low column standing in the center of the pool and from twenty-eight jets in the rim of the pool.³⁸

The *triclinium-nymphaeum* itself was lavishly decorated. Excavations uncovered fragments of its first marble and fresco decoration of the 30s AD that was replaced after the earthquake of AD 62. The numerous fragments of these earlier frescoes, now partially reconstructed in the Naples Archaeological Museum, show garden



Figure 11.10 House of the Golden Bracelet, v1.17.[*Insula occid.*]42, Pompeii, *triclinium-nymphaeum* complex, watercolor rendering.

scenes juxtaposed with figural panels.³⁹ The best-preserved paintings, however, were found in a vaulted chamber to the north. This high, narrow space had a floor of white marble tesserae interspersed with bits of colored marble, a mosaic vault depicting a rose trellis, and all four walls painted to simulate a lush park. A single door opened out to the living garden and views of the bay.

The density of detail and high quality of workmanship far surpass other Pompeian examples.⁴⁰ Each wall presents the familiar symmetrical design: the central focus is a fluted, hemispherical marble basin with water bubbling up from its center; birds alight on the rim (see Figure 13.20). A horizontal fence separates the viewer from these inviting scenarios, where fictive marble herms on elegant pilasters are enlivened by added pigments. In one, a young girl wearing a popular Julio-Claudian hairstyle and a young satyr seem

to gaze out at the viewer while serving as supports for marble *pinakes*, each of which displays a recumbent, semi-nude maenad, also partially painted, perhaps to suggest that she is just awakening and coming to life. At the top of the wall, hanging masks swing in a clear blue sky.

As at Prima Porta and in the House of the Fruit Orchard, the painted walls demonstrate the muralists' skill at reproducing the visual qualities of stone, wood, and metal, and above all living plants, birds, and animals. The sheer number of species defies belief. Among the plants grow evergreen arbutus, laurel, poppy, date palm, oleander, viburnum, periwinkles, plane, ivy, violet, bindweed, roses, pine, Solomon's seal, violets, and calendula. Flying and alighting throughout the park a birdwatcher glimpses nightingale, rook, pigeon, jay, water rail, oriole, thrush, blackbird, and partridge. Human inhabitants of this space could only take

in the veritable inventory of flora and fauna over time, and such a deep and protracted engagement with nature arouses memories of other senses – such as sound, for many bird species are identified more by ear than by eye; while flowers invoke aroma; breezes, marble, and water coolness.⁴¹

The diversity and precision, as we have seen, seem to be consistent with the contemporary fashion for collecting natural and artistic imports and for entertaining amidst a host's newfound material wealth. Plants growing in different seasons are visited by birds from distant regions that normally appear only at certain times of year, and combinations of living things that never co-exist effectively transport the viewer into a supernatural realm. True, some permutations might have been witnessed in hothouses thanks to newly transplanted species and innovative techniques of grafting, and exotic and domestic birds could have cohabited a modern aviary. Most homeowners, of course, did not possess such luxuries, and may well have imported their *effects* through painted simulations. Or if they could afford the real thing, as must have the owners of the Villa at Prima Porta, such simulations must have heightened experience with alternative versions of manmade nature.

Indoor Gardens, Outdoor Rooms

By far the largest number of illusionistic painted gardens embellished partially open spaces such as peristyles, porticoes, *exedrae*, and *nymphaea*. Remains survive at sites throughout the Roman Empire. Such murals in garden areas differ markedly

from the few spectacular painted interiors. First, in open-air spaces, painters played with the interactions between the painted illusion and its immediate natural context. Many examples demonstrate how they not only imitated living plants and garden decor, but also added fictive elements to introduce an alternative realm. Whenever possible, then, we should consider garden murals in relation to their physical context.

A hallmark of garden paintings is the deliberate confusion of indoor and outdoor realms. The earliest illusionistic fresco of an outdoor green space at Pompeii was painted in the first century BC in the peristyle of the House of the Menander (I.10.4). On the walls of a recessed, shallow *exedra* the eye moves between painted ivy-covered columns to glimpse a grove of trees with knotted trunks and flitting birds, all bathed in a hazy green light.⁴² At about the same time that the underground room at Prima Porta was created, such illusions began to appear in Rome in partially open spaces, but these remained subordinate to the overall architectural design rather than negating the solidity of the built walls. In a small courtyard of the Augustan Villa della Farnesina beside the Tiber River, murals featured regularly spaced niches containing plants and marble fountains – an arrangement that recalls the miniature plans – and these would have been seen from a large *triclinium* painted in black and twin *cubicula* on either side.

Similar compositions appeared about the same time in a very different Augustan construction on the Esquiline Hill, the huge summer *triclinium-nymphaeum* now known as the Auditorium of Maecenas. Also located partly underground, this

cavernous space includes a row of false windows above a large semicircular seating space (*cavea*), typical of an ancient theater (Figure 11.11). Each of the “windows” depicts a symmetrical composition of a tree and fountain set within the niche of a low marble fence; behind, abundant bushes sway in the wind and birds flit about or alight on branches. The designs alternate, one with a tall narrow urn, the other with a wide-brimmed shallow bowl, suggesting the existence of well-tended gardens immediately outside.⁴³

In both the interior rooms and in these partially open spaces we see the recurring composition of a marble or metal fountain basin surrounded by greenery and animated birds. Variations on the scheme occur often on Campanian walls

and continued to be popular in other parts of the empire, and may originally have been inspired by a famous lifelike mosaic of doves on the edge of a drinking vessel created by the Pergamene artist Sosos in the second century BC.⁴⁴ A garden painting in Pergamon that was created nearly three centuries later indicates the longevity of the subject (Figure 11.12). Located in the so-called House of Attalos, the fragmentary mural shows two birds perching on a metal *kantharos*, a projecting stone podium, and shrubs with red blossoms growing nearby.⁴⁵ The visual trope spawned infinite creative adaptations, but because of their seeming repetitiveness, many of these garden murals have tended to be ignored or have languished on unprotected walls.



Figure 11.11 Auditorium of Maecenas, Rome.



Figure 11.12 Pergamon, House of Attalos, wall painting, birds drinking from a metal *kantharos*, after Bingöl 1997, fig. 70.

Such is the case with the superb, although under-reported, paintings on the north wall of the peristyle in the House of the Arches (I.17.4: Figure 11.13). Raised on tall bases within regularly spaced apsidal niches of a fence and surrounded by rich vegetation, “marble” centaurs and sphinxes support, respectively, rectangular and round basins spurting jets of water. Another extraordinary series of paintings was on view in the small House of Romulus and Remus (VII.7.10: Figures 11.14A–D). On a wall just outside the portico was painted an arrangement of a marble crater fountain, topiary mounds of ivy, and a proud peacock. On either side of this, statues of nymphs are featured, each

carrying a shell basin, thereby enhancing and echoing the theme of water before a grove of trees including an umbrella pine.⁴⁶

The House of Marcus Lucretius (IX.3.5/24) on the Via Stabiana in Pompeii offers an example of how garden paintings enhanced a three-dimensional display. Upon entering, a visitor looked through the *fauces*, *atrium*, and *tablinum* to a prominently raised, stage-like space where statuettes of Bacchic figures and animals were arranged among plants and fountains (Figure 11.15). The arresting tableau in this relatively small space expanded through the blue sky, bushes, flowers, and fluttering birds painted on the back wall. Once within the house, multiple vantage points from various paths and rooms offered access to this idyllic realm.

The juxtaposition and interaction among different media in gardens are evident in a remarkable, little-known complex in Pompeii, which must have been a public dining establishment (II.9.6).⁴⁷ In the center is a large, masonry *triclinium* and standing before it, and visible from the street, are two niche fountains (Figure 11.16). Decorated both in fresco and mosaic with representations of the usual yellow lattice fences, marble fountains, flowering plants, and animated birds, these offered diners a visual extravaganza of mixed media: water, plants, fresco, mosaic. The emulation of illusionistic murals in mosaic was a logical result of the process whereby craftsmen painted the underlying plaster before applying colored glass cubes and, afterwards, sea shells and pebbles to evoke natural grottoes.

An impressive *nymphaeum* (L: 25 m; H: 2.3 m) belonging to a large Roman villa from the district of Massa Lubrense



Figure 11.13 House of the Arches, 1.17.4, Pompeii.



A



B



C



D

Figures 11.14A–D House of Romulus and Remus, VII.7.10, Pompeii, fresco, details.

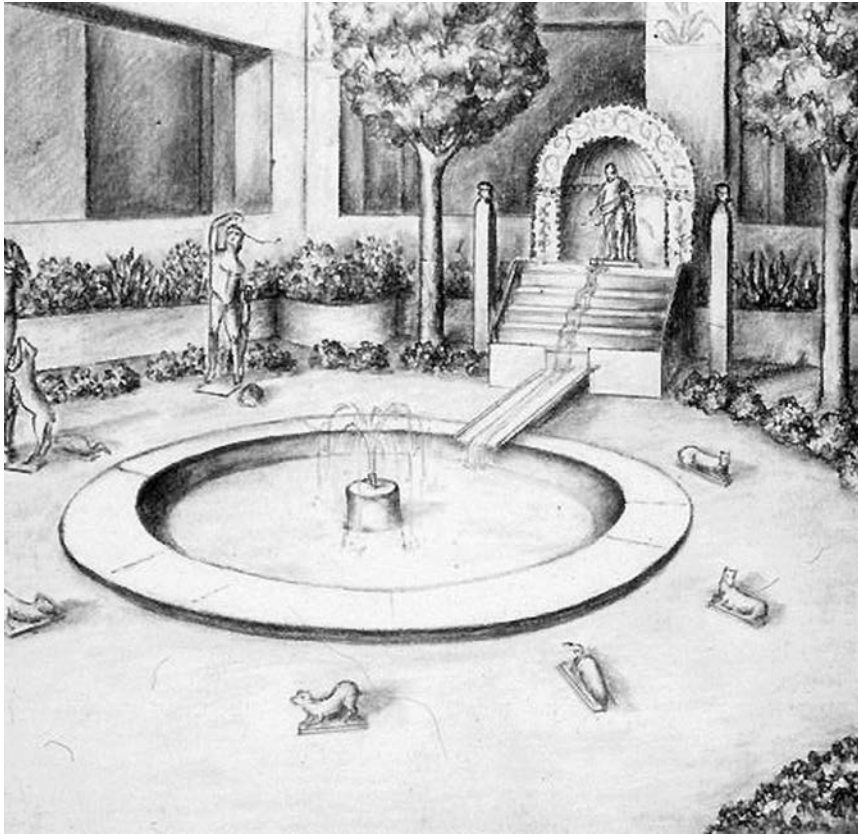


Figure 11.15 House of Marcus Lucretius, ix.3.5/24, Pompeii, reconstruction drawing.



Figure 11.16 Pompeii, 11.9.6, niche fountain.

on the Sorrento peninsula was originally situated above the sea on a slope facing the island of Capri (Figure 11.17A)⁴⁸ Its monumental façade consisted of a projecting central fountain flanked by two small niches. Water cascaded down four deep steps into a large basin (only partially preserved; L: 22.40 m; D: 1.2 m), which may have had a portico along its opposite side. Extending on either side of the central fountain are five rectangular niches, the middle one on each side incorporating an apse. The entire surface of the façade was decorated with colored glass, natural sea-shells, and veined and *rosso antico* marble. Within each apse appears a low, lattice fence with a central gate opening onto a lush grove of leafy green trees, shrubs, and birds against a blue sky (Figure 11.17B).⁴⁹ The curved surfaces of the apses lend a three-dimensional reality to the scene,



Figure 11.17A *Nymphaeum*, Massa Lubrense, now in the Museo Archeologico Territoriale della Penisola Sorrentina “Georges Vallet,” mosaic.

and the garden motifs reflect the immediate natural environment. Highlighted by streaming water, the brilliant scenes must have seemed like distilled jewels within this dramatic hillside garden estate.

The same playful, self-referential spirit of garden decor is perhaps best preserved in the unique garden arrangements of the luxurious Villa A at Oplontis just north of Pompeii (Figure 11.18).⁵⁰ A series of small light wells runs alongside the huge pool, where architecture and painting combine to produce a seemingly infinite succession of sunlit fountains and plants (Figure 11.19). The enormous picture windows indicate that these small, light-filled

spaces were intended for viewing. A person in the large room in the center of this wing (69 on the plan) could enjoy a variety of multiple vistas: one view led across the pool, through the framing architecture of a wide doorway and portico columns, to statues placed before trees. Or, that viewer could turn to the left or the right (toward rooms 87 at the north and 61 at the south) and look through a seemingly endless series of painted light wells. Although the elements of the paintings – bubbling fountains, marble statues, perching birds – are familiar from Pompeian houses, excavations around the villa suggest that the frescoes presented views similar to ones



Figure 11.17B Mosaic niche fountain, Massa Lubrense, now in the Museo Archeologico Territoriale della Penisola Sorrentina “Georges Vallet,” mosaic.

that could be enjoyed immediately outside. For example, in the north garden, a marble centaur fountain once stood directly before an oleander bush; a similar arrangement can be seen in courtyard 70, where the centaur appears against a glowing, as if sun-drenched, yellow ground framed by a red wall (Figure 11.20). Likewise, the marble crater sculpted with dancing figures at the end of the pool that could be seen through various doors and windows finds a painted parallel in courtyard 68.⁵¹ The highly skilled muralists at Oplontis recreated the enlivening effects of sunlight, shadow, and water, calling to mind the playful dialogue between painted and living garden in Pliny the

Younger’s villas. Again and again, we see how in green areas artistic media were interchangeable and craftsmen multiplied illusions through skillful imitations of one medium with another.

PICTORIAL THEMES IN ROMAN GARDENS

Landscape Panoramas

While most paintings in outdoor spaces depict gardens, a few notable exceptions offered an alternative kind of prospect onto the natural environment: panoramic views of sea and land. The extensive

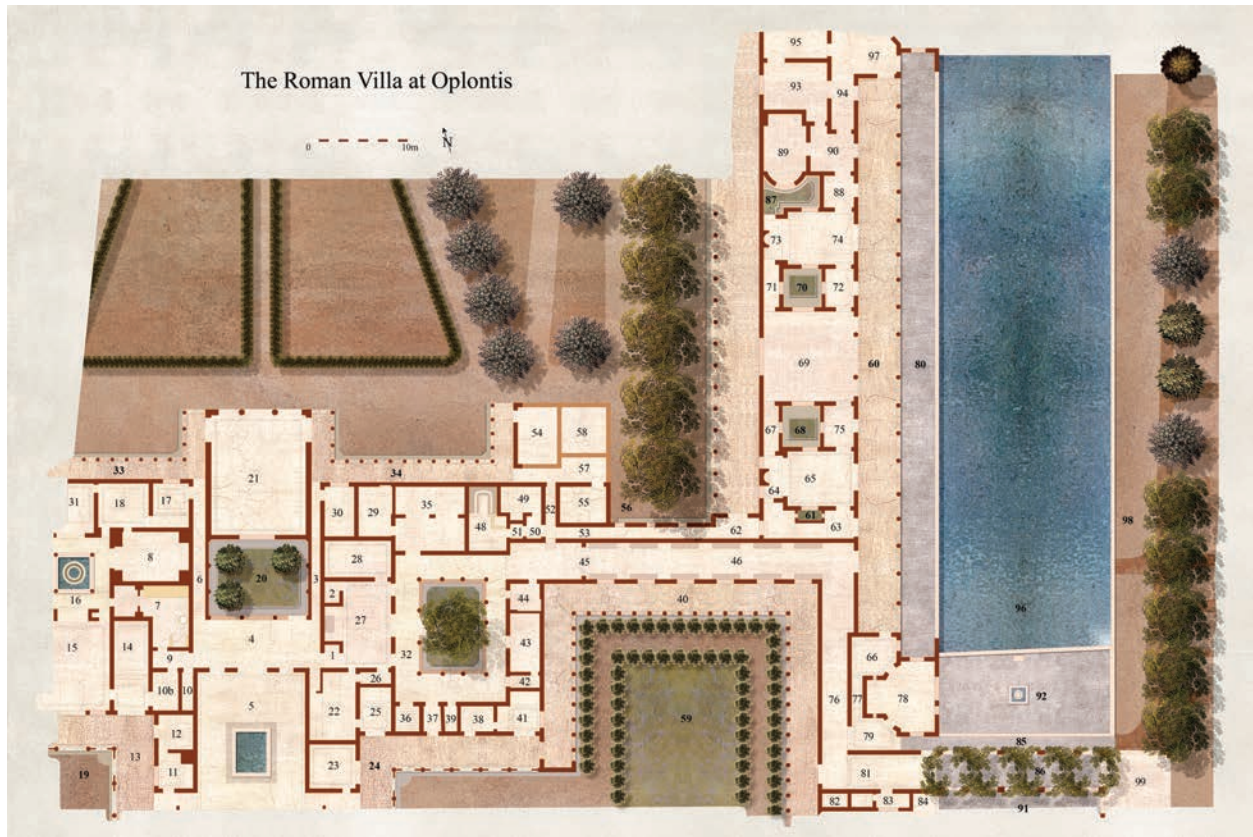


Figure 11.18 Villa A, Oplontis, Torre Annunziata, rendered plan.



Figure 11.19 Villa A, Oplontis, Torre Annunziata, view of courtyard 68.

painted frieze that once ran inside the entablature of a garden peristyle in the House of the Citharist (I.4.25) now survives only in fragments in the Naples Museum.⁵² This frieze would have offered views similar to those found on *pinakes* – islands, porticoes, temples, and boats – invoking the types of actual views enjoyed from a true seaside villa.

A comparable series of vistas survives in the *viridarium* at the back of the House of the Small Fountain (VI.8.23). This colonnaded, open area is immediately visible to anyone entering the house, whose gaze goes directly to a colorful mosaic niche fountain and the brightly painted landscapes behind it that are framed by columns and bright red walls (Figure 11.21).⁵³ Upon approaching the space, the visitor recognizes the open peristyle to be an illusion, for the columns on the back walls are



Figure 11.20 Villa A, Oplontis, Torre Annunziata, view of courtyard 70.

painted facsimiles of their freestanding counterparts on the two open sides of the small garden (Figure 11.22). This pseudo-peristyle was not meant for entry or repose but as a sensory oasis. Illusionistic, clinging ivy “grows” at the bottom of the walls, linking the murals to the physical garden space. Above, the red walls “open” like enormous windows onto large prospects of land and sea.

The six discrete landscapes framed by bold red frames are nonetheless visually united by their panoramic views of, for example, a harbor, a farm, or a sacred precinct. A viewer therefore could dwell on an individual framed image but a single light source, seemingly derived from



Figure 11.21 House of the Small Fountain, VI.8.23, Pompeii, view from *fauces*.

the natural environment, unites them as if they form a continuous landscape. A further link between the actual garden environment and the painted walls is the clever placement of a small bronze fisherman on the edge of the mosaic fountain, who finds his painted counterpart in the large scene at the left where another fisherman sits on a rocky outcrop, waiting for a catch.⁵⁴

While the murals in the House of the Citharist and the House of the Little Fountain showcase architectural landscapes, other garden spaces in Pompeian houses combine panoramic views of animal precincts and mythological scenes. The three walls of the small open area at

Figure 11.22 House of the Small Fountain, vi.8.23, Pompeii, wall painting.



the back of the House of Ceii (i.6.15), for instance, each features an expansive landscape (Figure 11.23). Actual water channels ring the edges where walls meet floor, creating a fluid boundary between the actual space in front and the space of the painted illusion behind. The lower walls depict neatly ordered ivy mounds and, higher up, bubbling sphinx fountains. Again, red walls constitute the framework; here they are filled with multiple illusions. Simulated, reflective metal vessels set on bases, shields, helmets, and sculpted reliefs, affirm the materiality of the wall on which they appear.

Within this vibrant assemblage, three enormous vistas are depicted. The first to catch the viewer's eye is the central, back wall, where massive, exotic beasts overrun a rocky landscape. The space is divided into two main planes, separated by color and proportion. In the watery foreground below, a lion readies to make his final pounce on a powerful bull, his

open mouth baring fangs and a blood-red tongue. In the plane above, a pair of wolves attacks a boar drinking from a pool. Left and right appear three-figure groups: on the left a boar, a deer, and a doe, and on the right a leopard and a pair of mountain goats. Even in the wilderness, humans made their mark; the semi-circular enclosure enshrining a massive, knotted tree may be an attempt to placate the resident spirits.⁵⁵

In contrast to the compressed animal scene, the side walls present distant, light-filled seascapes (Figure 11.24). On the right, east wall, the eye moves easily between one architectural setting and another, similar to the panoramic frieze in the House of the Citharist. Among islands and trees, tiny faceless figures sit and converse, not unlike the anonymous characters in the House of the Little Fountain landscapes. Of the left, west wall, only the lower part of the landscape is preserved, but one makes out an Egyptian world animated by minuscule pygmies (only



Figure 11.23 House of Ceii, 1.6.15, Pompeii, courtyard walls.

13 centimeters high) moving among towers, rocky outcroppings, and palm trees. Originally, if the landscape occupied the whole, 6-meter-high wall as its counterpart opposite, it would be the largest known pygmy landscape.⁵⁶

Several complex viewing patterns coexist within this constricted physical space. The huge scale and proximity of the scenes require that we take in parts of the murals piecemeal, from the tiny pygmies to the life-size bulls and lions. On the side walls the viewer looked through a distant lens upon a vast expanse of sea and land, picking up telescopic details here and there. On the central wall the eye must refocus, shifting to magnified animals in hot pursuit. Despite the abrupt jumps in scale between the lively array of wild

beasts and the two panoramic seascapes, the entire painted space is contained by the bold red framework. What should one make of this particular combination of subjects? Perhaps, as Dorothea Michel suggests, the three scenes share a unified theme of captured exotica. If the metal shields and helmets decorating the red panels allude to military victory, the animals and seascapes may invoke faraway territories of imperial conquest – visible extensions of the Roman world on display in a Pompeian house for daily enjoyment.

Beasts in the Garden

At least a dozen houses in Pompeii contain scenes like that in the House of Ceii where

Figure 11.24 House of Ceii, 1.6.15, Pompeii, east wall.



ferocious beasts run wild, roaming the landscape and attacking each other.⁵⁷ The origins may lie in the game parks, *paradeisoi*, that were owned by Hellenistic kings and late Republican nobles. Among them, Ptolemy II's collection of wild animals in Alexandria was famous long before Egypt became a Roman province in 30 BC.⁵⁸ Varro related how his fellow landowners in the first century BC boasted a stretch of undeveloped land for keeping imported, exotic beasts for hunting or simply to gaze upon;⁵⁹ Quintus Hortensius' park covered an area of fifty yokes. It has been assumed that Pompeian homeowners followed the tastes of wealthier Romans like Hortensius

by commissioning painted simulations in a kind of social trickle-down aesthetic.⁶⁰ Recently, however, scholars have noted that no animal paintings have been found elsewhere in Campania, and those that appeared in Pompeii in the last fifteen years of the city decorated the homes of the *aediles* and *duovirs* who funded local amphitheater spectacles.⁶¹ Furthermore, Eleanor Leach cites an Augustan funerary inscription that mentions bulls, boars, and bears put on display by a local magistrate and points out that almost every Pompeian animal mural depicts these three species.⁶²

Another connection between the arena and garden walls is the decoration of the

amphitheater itself.⁶³ After the earthquake of AD 62, the balustrade was painted with animals, probably to heighten suspense for the audience waiting for the hunts to begin and then to function as a backdrop while the spectacles took place.⁶⁴ We know that at least in Rome, beast hunts in the arena were performed amidst a constructed landscape of rocks, trees, and birds. The amphitheater decor may therefore have prompted a new fashion for garden murals representing theatrical spectacles, not only in houses but also in public places. Whether the animal paintings originated in royal game parks or in local spectacles, or in a mixture of both, by the first century AD they had become popular in domestic gardens where they could be complemented by animal sculptures in marble or bronze. In the House of the Citharist at Pompeii, bronze boars, stags attacking stags, and a threatening

snake populated the bushes inside the peristyle.⁶⁵ It is puzzling, however, that only one Pompeian mural, in the House of the Ancient Hunt (VII.4.48), depicts human hunters, the *venatores* of arena spectacles, and there the animals are not “dressed” for the arena. The large mural on the south wall of the small *viridarium* depicts robust animals in rugged terrain fleeing from their human pursuers. The scene of heated pursuit is framed by schematic gardens with fences and oleanders, as usual, an image of tamed nature containing the wild.⁶⁶

One mural painted in a garden space is undeniably related to local spectacles. The famous “Riot in the Amphitheater” (Figure 11.25) originally was flanked by two smaller pictures of gladiatorial contests on the west wall of a modest garden not far from the Pompeian amphitheater (I.3.23). Contemporary viewers instantly would



Figure 11.25 House of the Gladiator Actius Anicetus, I.3.23, Pompeii, “Riot in the Amphitheater” fresco now in the Naples Archaeological Museum.

have recognized its prominent façade and double-ramp staircase supported by arches, the city wall with two towers, and the “palaestra” with the name of its benefactor, D. Lucretius, inscribed on the exterior wall.⁶⁷ The awning (*velum*) for shade signals that the arena is in use. Although the “palaestra” has moved from its actual location for clarity, the topography seems convincing in light of tree roots found in the open area around the amphitheater. The fact that a local event was memorialized on a garden wall lends support to the theory that the more generic animal paintings refer to spectacles close to home.⁶⁸

Some painted garden walls of Pompeian houses show animals that are neither being hunted nor fighting each other, but rather coexist in a kind of peaceable kingdom. Wandering into the back garden of the House of Lucretius Fronto (v.4.a/11), one encounters an extensive animal realm

unfolding along three walls (Figure 11.26). No humans are present; beasts alone interact with each other, either aggressively (a leopard chases a deer; a lion pursues a bull) or peacefully (a lion observes a deer drinking from a stream; a bear eats fruit from a tree). As one walks past the succession of large panels, various beasts appear in different situations, inviting observations of animal behavior. The most comprehensive array of natural species is painted in an enormous *nymphaeum* in the House of the Centenary (ix.8.3–6).⁶⁹ Here the entire ecological world, from the terrestrial to the aquatic, is on display. On the upper level, animals roam in lush landscapes across gardens where bubbling marble fountain urns are supported on the heads of sphinxes and centaurs; below, surfaces of a pool once filled with water mingle land plants and birds with varieties of swimming fish.

Figure 11.26 House of Lucretius Fronto, v.4.a/11, Pompeii, back peristyle.





Figure 11.27 House of Orpheus, vi.14.20, Pompeii, Orpheus fresco, watercolor, after Fausto and Felice Niccolini, *Le case ed i monumenti di Pompei disegnati e descritti* (4 vols., 1854–97).

Such unique pairings and groupings of animals, reptiles, and birds can be seen in the pseudo-peristyle of the House of Romulus and Remus (vii.7.10) opposite the Temple of Venus on the Marine Gate road which, as we have seen, also featured a mural display of nymph fountains amidst plants (Figures 11.14A–D) and, on the west wall, a reclining Silenus. Next to this on the wall of the covered portico a unique *mélange* of creatures inhabit an undulating terrain on different levels. A snake winds around a tree trunk while an elephant looks up at another beast above. On the adjoining north wall mingle a bull, a lion, a reclining oryx, and a bear. The animals seem to turn toward something on the right, where today the mural is missing; could the magician Orpheus have sat there playing his lyre, lulling the creatures into a trance?⁷⁰

Just such a scenario formed the heart of the House of Orpheus on the Via Stabiana (vi.14.20: Figure 11.27). From the entrance a visitor could have immediately seen the

musician Orpheus on the back wall of the pseudo-peristyle – larger than life, at 7 ft. 8 in. – sitting frontally, seeming to look back at the viewer as he plays his lyre and sings.⁷¹ Nude but for a red cap and chlamys, gold earrings, and sandals, Orpheus, flanked by a lion and panther, steadies his instrument on his left knee and plucks its strings with a *plectrum* in his right hand. He is in the midst of playing to a gathering of wild beasts that includes even Jupiter's eagle; all stop in mid-action at hearing his spellbinding music.⁷²

Considering this image in its physical context is informative, for a spectator could never have actually seen the entire composition head-on (as it is depicted in a nineteenth-century watercolor). Architecture would have blocked, directed, or framed the gaze. The garden area itself, though partially enclosed by grand columns, is actually tiny – a space meant to be seen and not entered. Even if one were to step inside the *viridarium*, the entire mural, which originally extended

into painted gardens on the contiguous left wall, would have been too immense to take in at once.

Orpheus' landscape is framed by woodwork and above by hanging garlands and ruffled curtains (mistakenly interpreted by the nineteenth-century watercolorist as stalactites). Symmetrical panels frame the central scene with competing vistas, opening like windows onto blue skies, green foliage studded with fruit and flowers, animated by a great variety of birds fluttering and perching above small latticework *aediculae*. Between the hanging garlands dangles a marble *oscillum* painted with a dancing satyr, an object found suspended between columns in actual Pompeian peristyles; carved and painted on both sides, their scenes could be enjoyed as they swayed and twisted in the breeze.⁷³ The fictive *oscillum* thus suggests wind and motion. A small window cut into the right wall interrupts the painted scene. In the watercolor reconstruction, one looks through this window into a yellow room and glimpses, painted on its wall, a hovering cupid, similar in form to the dancing satyr on the *oscillum*. The window of this small yellow room heightened the spatial ambiguities of the entire mural into which it was cut, so that background and foreground collapse.

No matter how incongruous the pictorial spaces, the eye always returns to the central point of significance: Orpheus. All is ultimately disposed in relation to him and the animal audience is smitten. A lion stands, transfixed, mouth clenched and fangs exposed; now a domesticated beast or friendly pet, he is the comic inverse of a hunting scene, recalling Varro's story of Hortensius' enactment of Orpheus with a well-rehearsed, tamed menagerie

of imported animals.⁷⁴ The impact must have been stunning: lions had first been shown in Rome a century earlier, according to Livy in 186 BC, when other dangerous animals were just being seen for the first time.⁷⁵

Just as an ancient viewer could never have seen the whole wall without architectural impediments, so we ought not to be disturbed by shifting perspectives and multiple points of view inherent in the paintings themselves. In fact, it is tempting to consider the panels flanking Orpheus as performing the function of theatrical scenic screens. Landscape was an appropriate location for performance; Ovid stresses that Orpheus performed his song to a "theater" of birds, animals, and trees.⁷⁶ It was Orpheus, after all, who "invented" the first ideal landscape through his music, making all of nature his own theater and audience.

Venus in the Garden

More statuettes and wall paintings of Venus, goddess of gardens and of the city of Pompeii, have been found in local gardens than anywhere else. Venus' magic atmosphere and generative power were also brought inside. Many of the statuettes in the open-air spaces of homes and inns are still vivid with inlaid eyes and traces of color in hair and clothing. We cannot be sure how many of the statuettes were actual objects of worship and how many served as garden decor. Although it is possible to visualize some of the portable statuettes in their niches, we still miss a large part of the picture: the gardens themselves. What kinds of plants grew there and what kinds of birds and insects

did they attract? The frescoes offer tantalizing hints of Venus' natural ambiance, of the fragrant herbs and flowers, gushing water, and chirping birds that manifest her divine presence as surely as does her human, female form.

In the House of Venus Marina (11.3.3), the focus of the spacious central peristyle is a huge panel representing Venus reclining on a shell on the back wall (Figure 11.28). Flanking this horizontal, rectangular scene are the familiar display of plants, a continuous painted fence, and burbling marble fountains. A unique feature on the left is a marble statue of Mars standing on a high pedestal.⁷⁷

Venus floating in her half-shell operated as a point of orientation, offering a variety of satisfying views from key spots, both near

and far, within and without the house. The ancient visitor's approach from the front door was less direct than that in the House of Orpheus, but as he or she moved through the *atrium*, the goddess's image must have been a powerful draw to continue farther inside. From inside the portico, the rhythmic interruption of columns staggered the views. The only place from which the whole back wall could be seen on axis was from a standing position directly across the peristyle. The goddess is in movement: her red mantle wraps around her right arm and a palm fan billows like a sail, guiding her toward our left. From behind, a cherubic Cupid, half hidden by the shell, propels her forward, while another Cupid in front, wearing a crown and a blue mantle, carries what appears to be a sail and leads



Figure 11.28 House of Venus Marina, 11.3.3, Pompeii.

the way on a dolphin. Venus wears a gold diadem, earrings, a spiky gold necklace with a large red jewel, a serpent bracelet on her left wrist, finger rings, and anklets. The erotic qualities of gems and metals touching exposed skin are among other seductive aspects of this image.⁷⁸ Without narrative progression, the scene depicting Venus is an extended moment, a freeze-frame of the goddess's windswept voyage toward her island. Similar to Orpheus, the goddess appears like a vision or epiphany, exerting her supernatural charms: she stills the waters; wind and clouds obey her, as do the fecund plants and joyful birds of the garden.

The whole back wall is illuminated by imaginary sunlight pouring in from the right. Left and right, a theater mask hangs from the middle of a garland. Behind the latticework fence grows a multitude of trees with ripening fruit and fragrant flowers associated with the goddess. The rose was Venus' flower; quince and pine were aphrodisiacs. Myrtle, famous for its

sweet scent and edible berries and associated with erotic desire and marriage, was woven into the garlands carried by Roman women worshiping Venus on the Kalends of April.⁷⁹ Flying about are depictions of orioles, swallows, song thrush, gray shrike, and of course the white dove, bird of the goddess. The garden scene in the panel at the right (Figure 11.29) is carefully calculated: in the center a marble fountain contains a red half-shell, a visual reference to the goddess nearby, the shellfish that harbors the greatest aphrodisiac of all, and its name a visual pun: *vulva*. This basin gushes a jet of water, attracting symmetrically perched herons on either side – paired lovebirds, also related to the goddess.

As the painted gardens continue onto the east wall, they become saturated in a yellow glow (Figure 11.30). A marble calyx crater on a tall base seems to move as its large handles twist in space. Behind it a pine tree is laden with cones; a wood pigeon sits on top and another

Figure 11.29 House of Venus Marina, 11.3.3, Pompeii, Wilhelmina Jashemski standing in front of garden painting.





Figure 11.30 House of Venus Marina, 11.3.3, Pompeii.

flies toward an ivy garland, which is fastened in the center by a helmet, its metal appearing to reflect sunlight. A major attraction immediately to the left of the Venus is the nude marble statue of Mars (Figure 11.31). He is completely white but for his helmet, red chlamys, eyes, and hair. Touches of flesh color can be seen at the ends of his fingers and around his nose and mouth, as if he were a statue coming to life or a man turning to stone. He stands like a steadfast guard, holding a spear in his right hand and shield in his left, yet unable to ward off the pesky birds encircling his head. The god of war, frozen in white marble, contrasts dramatically with the lively, polychromatic Venus. He is immobilized, objectified, an



Figure 11.31 House of Venus Marina, 11.3.3, Pompeii.

art object on a pedestal; she is a seemingly real flesh and blood female. If the juxtaposition seems to be a visual joke on their famous extramarital affair, it is also a self-conscious wink at the artifice of it all, of the illusionistic painted statuary, gardens, sea, and goddess. Indeed, around the Venus panel is a painted brown frame and above are remains of an actual stucco cornice. For all of its conceits of being a living three-dimensional image, Venus is clearly just a two-dimensional framed picture positioned ironically beside an inanimate Mars that appears to be an actual statue occupying a real space. The whole scenario arouses the senses of the beholder; she seduces, both up close and from afar, and the atmosphere of trees, water, birds, sunlight, and fragrant flowers implies the primacy of the senses over

Figure 11.32 House of Wounded Adonis, vi.7.18, Pompeii.



the mind, eminently commensurate with Venus' powers.

Another manifestation of the goddess of love embellishes on the north garden wall of a house on the aristocratic Via di Mercurio, the House of Wounded Adonis (vi.7.18: Figure 11.32).⁸⁰ Venus gazes upon her beloved young Adonis, who has collapsed into her lap after being fatally wounded by a boar. Erotes clamor around him: one bandages his thigh, another helps Venus raise his arm, while still another cries uncontrollably at his side. A male figure in a Phrygian cap, a river personification, places the scene and characterizes the oriental origins of the myth. This scene, painted in the last years of the city, formed the focal point for a suite of rooms around a pseudo-peristyle. The large room directly across from the painted wall, no doubt a *triclinium*, had the best view of the goddess and her lover, framed by columns of the portico. Imitation marble columns

are painted on either side of the scene and divide the entire wall into three panels.⁸¹ A watercolor by Victoria I (Figure 11.33) shows how the architectural and pictorial framework must have offered a kind of thematic mirror, in which Venus and Adonis recline in a space directly across the garden and parallel to that occupied by viewers reclining at meals in the *triclinium*.⁸²

The death of Adonis, like the scenes of Orpheus and Venus Marina, becomes more emphatic by the flanking prospects of fertile gardens. In the right panel grows an acacia bush with yellow flowers; a butterfly hovers on the bush; oleanders bloom in the background; a small pomegranate tree bears fruit; a large white bird perches on a Madonna lily, known for its white color and fragrance.⁸³ In the foreground at the edge of a rocky pool, a sleeping faun, his right hand clutching a wineskin, recalls the *satyrica signa*, mentioned by Pliny, of



Figure 11.33 House of Wounded Adonis, vi.7.18, Pompeii, watercolor reconstruction.

garden ensembles.⁸⁴ The combination of plants, birds, and statue is unique to this wall, just as those in the House of Venus Marina relate to that goddess.

The literary descriptions of the festivals of the Adonia focus on its (and Adonis') transitory nature, symbolized by ephemeral plants, flowers, and fruits, such as the pomegranate, which alludes to rebirth.⁸⁵ But pride of place in the visual displays, both in the literary *ekphraseis* and in the Pompeian mural, is given to the androgynous body of the delicate Adonis himself. The attention drawn to Adonis' exposed body captures the goddess's passionate, longing gaze for the wasting youth.⁸⁶ Adonis hovers between childhood and manhood; unable to succeed at the hunt, his maturity is compromised and

he remains a subordinate lover. Adonis' arrested development is underlined by the paired figures painted on either side of the couple; in mirror image are versions of the famous marble statue group of Chiron teaching Achilles to play the lyre. The statues are fully colored to imitate life; indeed, they appear even more alive than pallid Adonis. The Achilles-Chiron groups present a comparison between the Greek hero and the dying hunter; like Adonis, at this moment of his life Achilles is a nubile youth at the threshold of initiation into manhood. Achilles embodies the erotic, androgynous state of life, but will learn to hunt, go to battle, and reach manhood. The statues thus charge the main subject with pathos and with the notion of "what could have been."⁸⁷

The three mythological scenarios on garden walls depicting Orpheus, Venus, and Adonis show that painted gardens are not merely formulaic staffage but sometimes refer specifically to a deity or a story. The tale of Adonis as recited, sung, and performed by bucolic poets reminds us of the role of landscape as a performance space for artistic competition. Likewise, Orpheus performs to a “theater” of birds, animals, and trees. Venus arouses the waves. Indeed, one could see the relations among gardens and gods inversely: the numinous power in nature manifests in the human form of gods. Just as Venus, goddess of gardens and vegetation, suffuses all of nature, behind the story of Adonis lay memory of the annual growth and decay of vegetation, the seed that is sown, springs up, and dies.⁸⁸

We end with a garden complex in Pompeii that offers a virtual compendium of different approaches to garden

paintings and exemplifies the complex viewing experiences Roman homeowners desired. The back garden of the House of Octavius Quartio in the green zone of Pompeii (II.2.2) is the most extensive surviving ensemble of garden architecture, sculpture, and murals (Figure 11.34).⁸⁹ After AD 62, the house was rebuilt and raised on a platform that provided a number of vistas from the house. In the garden two marble-lined water channels met at cross axes inside a pergola. The longer channel, or *euripus*, ran from the back of the house to the end of a spacious garden. The long channel was spanned by miniature bridges and decorated with *aedes* and portal/pergola structures, providing a progression of viewpoints in stages ultimately leading across the Sarno plain to the mountains of the Sorrento peninsula. At one end of the shorter channel on the upper platform above the garden stood a *biclinium* with two scenes painted

Figure 11.34 House of Octavius Quartio, II.2.2, Pompeii.



above the couches depicting Ovid's *Metamorphoses*, the love story of Pyramis and Thisbe, and Narcissus. From there one could either look out onto the garden or to the other end of the channel to a cascading fountain flanked by paintings of Artemis and Actaeon.⁹⁰ Along the wall beside this upper channel were painted a series of large panels with more familiar scenes: a wild beast hunt, Orpheus charming the animals, and Venus Marina. This ensemble of paintings was complemented by marble sculptures set in a row on the outer side of the channel. In this house, the painted images, waterworks, whimsical architecture, sculpture, and planted gardens, all located near dining areas, show the integral role that painting played in multimedia environments.

CONCLUSION

Within the ordered, geometric gardens of Roman Campania, painted walls expanded into illusory realms and became dramatic backdrops for the comings and goings of inhabitants. The paintings of gardens interacted with real gardens and the other main subjects on garden walls – architectural landscapes, wild animals, and mythological scenarios – appear in conjunction with specific plants and wildlife in painted gardens. Each scenario was unique, yet the aesthetics of these ensembles find echoes in urban parks and domestic gardens throughout the Empire and in later periods.⁹¹ Not surprisingly, the painted gardens represent ideal gardens at their best moments, bathed in sunshine, showcasing blossoming flowers, ripe fruits, singing birds, and splashing fountains. Such

moments were rare, if not impossible. A wealthy patron's aviary might offer a spectacle of many exotic species. A talented gardener might have learned techniques of grafting and raising imported trees and plants. Gushing waterworks probably were saved for entertaining events because of the slave labor needed to supply and feed water up into the fountains. When these highpoints occurred simultaneously, it is not surprising that such a sphere would seem to transcend the here and now and even signal the presence of a deity.

Elsewhere in the empire it appears that craftsmen followed the tradition of illusionistic garden murals, but from what survives the particular combinations of garden paintings with beasts, landscapes, and myths do not enjoy an afterlife in the provinces. Jashemski noted a few examples of garden paintings outside Italy: in Fishbourne, Wales, Strasbourg, Virunum Austria, Njmegen, on the island of Cos, at Ephesus, and in Bulla Regia in Tunisia. More examples have come to light since, especially in Gaul, which, thanks to the efforts of Alix Barbet, is the best-documented province for Roman painting. From the grand lakeside villa complex at Sirmione in northern Italy survive fragments of frescoes with finely rendered flowers, prunes, and grapes. From remains of a garden painting in Fréjus, Barbet reconstructed the entire portico of a house where the wall paintings show a wicker fence, plants and birds, a statue niche, and a base. Notable among the examples in France is the sunken garden within a peristyle at Périgueux, the walls of which were painted around AD 150 with fountains, statues, and green garlands.⁹²



Figure 11.35: Slope House H2 (21), Ephesus, Turkey.

Perhaps the best example outside Italy is the courtyard of Terrace House H2/21 in Ephesus, whose north and south walls and piers, dating from AD 150 to

175, present magnificent *trompe l'oeil* illusions (Figure 11.35). Above a high dado of *opus sectile* birds flutter about in a blue sky and a grove of quince, pomegranate, cypress, and poplar trees bear large, bright green leaves, and colorful blossoms and fruit.⁹³

While some painted gardens continued to appear in provincial cities, this type of decoration did not enjoy the same popularity that it had in Italy. Instead, homeowners in the western part of the empire, specifically Spain and North Africa, invested in mosaic pavements. The mosaics of North Africa offer a fascinating corpus of nature imagery that employs some of the visual vocabulary of earlier garden paintings, despite their very different geographical locations and diverse flora, fauna, and access to water. The water basin remains a central focus, vines project from flat surfaces, and human interventions in nature are everywhere apparent. Windows, porticoes, doorways serve to frame, separate, organize, and synthesize nature in all its possible manifestations and invite immersion in a supernatural, green realm.

Chapter 12

MOSAICS AND NATURE IN THE ROMAN *DOMUS*

Amina-Aïcha Malek

THE MOSAIC OF THE JONCHÉE AND ITS PICTORIAL SPACE

Among the many mosaic pavements that are displayed in the museum of Cherchel, Algeria, one in particular catches a viewer's attention (Figures 12.1A–C).¹ Sprays of flowers (in French: *jonchée*) and leafy laurel branches appear to have been strewn upon the ground, inviting one to step onto a soft, natural carpet. The seemingly random arrangement of leaves and flowers on a dark background lends the impression of spontaneity and a natural outdoor environment. Indeed, the viewer has the impression of light reflecting on the tips of leaves, a breeze stirring the branches, and delicate fragrances emanating from flowers. The multisensory experience of sight, touch, and smell stimulated by this unusual floor raises questions about the space that it embellished as well as the cultural and artistic contexts in which it was created.

This enigmatic mosaic was found in Caesarea, the capital of Mauretania famous for its sculpture and mosaics. Among these, the best known is the Mosaic of the Agricultural Labours from Cherchel, dated by style to the third century AD, which in contrast to the Jonchée mosaic, places the viewer *outside* a pastoral scene.² The Jonchée *immerses* us in nature, and its design invites a closer

Figure 12.1A House of the Jonchée, room 5, Caesarea of Mauretania, mosaic, Parc de la mosaïque, Nouveau musée, Cherchel, Algeria.



A



B

Figure 12.1B House of the Jonchée, room 5, Caesarea of Mauretania, detail of mosaic, Parc de la mosaïque, Nouveau musée, Cherchel, Algeria.

understanding of the particular relationship to nature expressed elsewhere in the art of major cities and provincial capitals of North Africa.

The Jonchée mosaic decorated one of the largest houses in Caesarea, located to the southeast of a plateau near the sea (Figure 12.2). Only partially excavated and poorly preserved, it included two levels separated by a terrace wall, of which only 15 meters have been uncovered, and a staircase, which gave access between them. On the lower level, a rectangular basin ("citerne" on the plan) containing



C

Figure 12.1C House of the Jonchée, room 5, Caesarea of Mauretania, mosaic, Parc de la mosaïque, Nouveau musée, Cherchel, Algeria.

a fountain may have occupied the center of a peristyle. Perhaps marking the southernmost extent of the house is a row of rooms, the largest of which ("5" on the plan), measuring approximately 35 square meters, contained the so-called Jonchée mosaic.

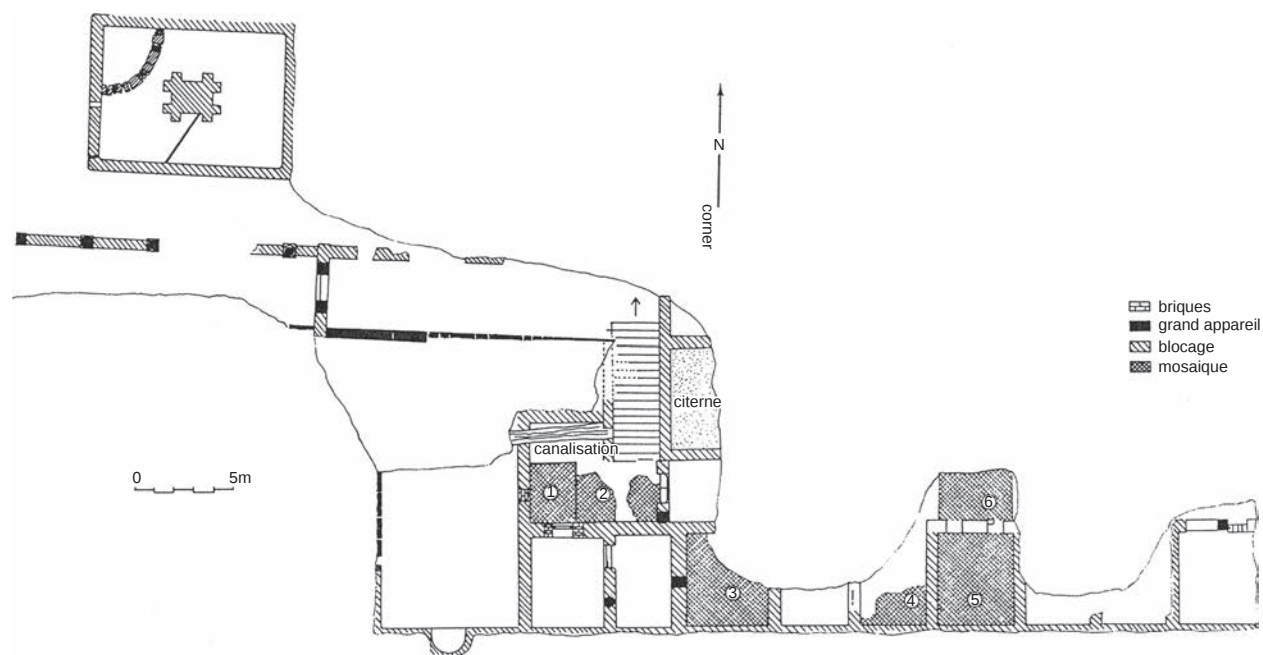


Figure 12.2 House of the Jonchée, room 5, Caesarea of Mauretania, plan, after R. Guery, in Ph. Leveau 1982, p. 111, fig. 1.

As discussed, a densely packed scattering of laurel branches strewn with stemless flowers covers the entire floor. A compact appearance is suggested by careful and close juxtaposition of branches, and randomness is implied not only by the asymmetrical arrangement of the laurel but also by the flowers, which appear to have been casually tossed on top of them (Figure 12.1C). Painted laurel and flowers are well-known subjects in Roman houses such as, for example, on a ceiling in Pompeii (1.6.11: Figure 12.3) where lilies, roses, and other flowers appear to float downward from a dark background. Such painted images may have influenced the designer of the Jonchée mosaic, yet scattered branches and flowers on a floor are conceptually different from those appearing on a ceiling. The Jonchée mosaic gives the sense of flowers that have already fallen to the ground, reminiscent of descriptions of Nero's fabled

dining room in the Domus Aurea, where a paneled ceiling opened to scatter flowers onto reclining guests below. Nearly two centuries later, the emperor Elagabalus literally smothered guests in his *triclinium* under masses of flowers.³ Perhaps an even more pertinent example is from the third century BC when Ptolemy II Philadelphos had erected a temporary pavilion with a roof made of branches of myrtle and laurel and with a floor strewn with flowers (in spite of it being winter), lending the appearance of a meadow.⁴

But the cut branches of the mosaic are so tightly packed together they evoke a couch or bed deliberately made of branches and spread with flowers. Indeed, during agrarian festivals, *stibades* – beds of straw, rushes, or leaves comprised of herbs and flowers gathered from meadows and then strewn over the ground – were places of repose.⁵ Plato, in fact, describes the simple life of the inhabitants

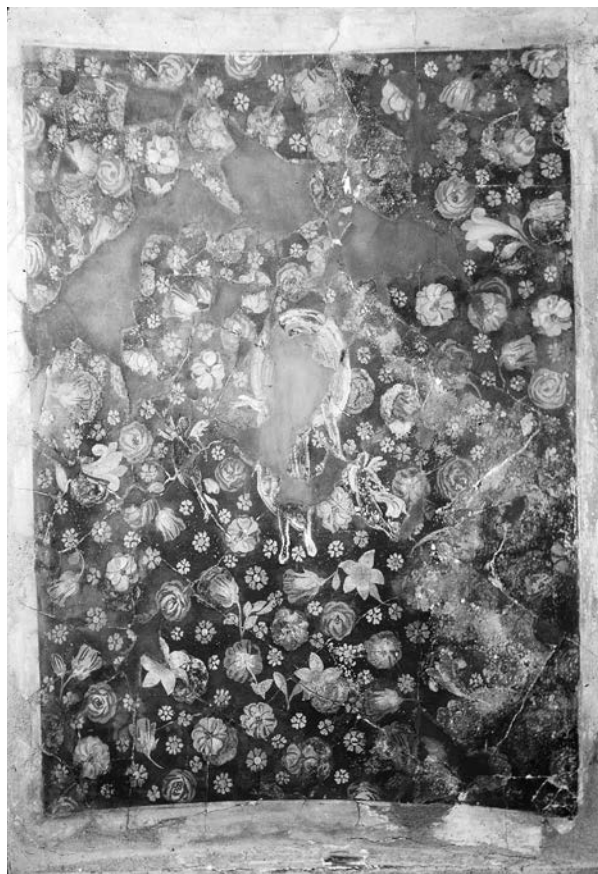


Figure 12.3 House of the Small Theater Paintings (Quadretti Teatri) or so-called House of Casca Longus, Pompeii. Painted ceiling in second *cubiculum* on the east side of the *atrium*.

of the First City as being served “noble cakes and loaves on some arrangement of reeds or clean leaves” and reclining “on rustic beds (*stibades*) strewn with bryony (*smilax*) and myrtle,” feasting with their children, drinking wine, and singing hymns to the gods.⁶ Although these primitive festivals were from the distant past, *stibades* made of leaves, herbs, and flowers must have maintained at least a symbolic value of nature, fecundity, and religious exaltation.⁷ These rustic occasions, imagined as idyllic celebrations, evoked a time when men in their primitive innocence welcomed strangers and the gods to share their food, offering and

receiving the fruit from a bountiful and nourishing earth.

Lucretius likewise describes the simple and healthy distractions of his ancestors, who, “lying in friendly groups on the soft grass near some stream of water under the branches of a tall tree, at no great cost they would give pleasure to their bodies, above all when the weather smiled and the season of the year painted the green grass with flowers.” And, when the merri-ment ended, “the old couches strewn with grass and piled up leaves were deserted.”⁸ But he also employed these same words in Book 2 to describe the rustic pleasures of the philosopher in an ambience of peace and serenity which nature alone can offer him.⁹

These passages illuminate the representations of layered branches strewn with flowers. The modest *stibas* combines three elements: the tree, the soft grass, and the stream of water, all of which characterize the *topos* of the Greek and Latin *bucolica*. The flowery meadow that was covered with boughs during religious ceremonies transforms itself into a *locus amoenus* that invites rest and dialogue.

In light of this interpretation, let us return to the Jonchée mosaic and consider it within this context. The Jonchée mosaic is unusual in that it has no frame, suggesting that the bed of leaves continues beyond the walls of the room, on which, unfortunately, no trace of painting is preserved. The omission of a frame enhances the illusion of being immersed in a bed of flowers.¹⁰ On one level the viewer sees the material reality of mosaic tesserae depicting branches studded with flowers and a possible actual view from the room to the sea; on another level, the viewer is transported to a space idealized by ancient

writers from Plato to Lucretius, where one could enjoy the leisure of a philosopher and experience the lost simple joys as inhabitants of the "First City." The floor mosaic therefore evokes a rustic setting for celebration: flowers, trees, water, perfumed air, a setting where one eats, sings, communes with nature, and the rustic muse calms the soul of the lettered man. This unusual mosaic, with its erudite allusions to the ancient past and to philosophical landscapes, implies a sophisticated owner, steeped in classical learning.¹¹

The Jonchée mosaic relates to themes that we will now examine in North African mosaics from the mid-second century to the late Empire, and in other mosaics from the rest of the empire. The images and motifs of these mosaics have not been studied in relationship to gardens even though many are closely related to garden themes in, for example, ancient literary *topoi* and wall paintings. Furthermore, a study of mosaic pavements in their architectural context of reception rooms, peristyles, porticoes, thresholds, and gardens reveals a physical relationship with nature that has been typically unrecognized or not fully exploited.

Two characteristics specific to mosaic pavements are crucial to understanding the types of spatial experiences mosaicists created for the viewer: the frame and the position of the viewer in relationship to the framed composition.

Frames in mosaics are important for the experience of the viewer. In most mosaics, multiple frames of different sizes divide pictorial spaces into separate compartments that together make a harmonious composition. This device of framing allows a juxtaposition of images that would otherwise be perceived as out of

place. Each interior frame permits the figures that it encloses to express a meaning independent of everything outside it.

Moreover, the relative forms and positions of the interior frames with respect to one another create a clear composition and visual hierarchy. Thus, frames are the most efficient devices used by mosaicists to create pictorial compositions, since they invite the eye to explore several imaginary spaces at the same time. Furthermore, the overall composition and hierarchy of framed scenes establish the position of the observer, directing visual and physical movements around and over certain scenes, thereby creating multiple viewing experiences.

Likewise, framing of discrete spaces was also a consistent feature of gardens, where architectural elements such as colonnades, doorways, windows, and trellises focused the view on real spaces composed of plants, garden furnishings, and the distant landscape as well as on illusionistic spaces created, for example, by wall paintings. Architectural framing with fluid physical and visual boundaries permitted the interchange of practical daily life and poetical flights of fancy.

Iconographical studies have illuminated the meaning of floor mosaics but iconography does not tell the full story. Philostratus, an author of the third century AD, confirms that images were not merely decoration. In his *Imagines*, he declares his intention to teach students how to perform a critique of taste and judgment. In the *ekphrasis* of *A Marsh* he warns his young listeners to resist the temptation to praise an artist for his skills of imitation, and tells them that the most important aspect of the painter's art is to express what lies beyond appearances. In the painting of *A*

Marsh, the profound meaning expressed by the artist is the power of Eros, the sovereign mover of nature. Philostratus' lesson reveals that viewing paintings is a complex exercise and that comprehension is not immediate.¹² Similarly, access to the intended meanings of ancient mosaic pavements and gardens has been limited by our assumptions inherited since the Renaissance. We need to understand these images within their original contexts, both physical and cultural.

IMMERSIVE IMAGES

A well-known Syrian mosaic of the third century from Daphne, *Opora, Agros, and Oinos at Dinner*, shows Oinos (personification of Wine) represented as a silenus serving drinks to Opora (personification of Harvest or Vintage and Autumn) and reclining with Agros (personification of the Field and also one of

the epithets of Dionysos as god of the fields) (Figure 12.4).¹³ Such an abstract image, which could be seen as homage to Dionysos, god of fertility, underscores the difference between such images of the banquet and the following floor pavements that immersed the viewer into a virtual Dionysiac environment.

The power of Dionysos, whose miraculous wine causes nature to burst forth, is celebrated in several African mosaics. In the *Mosaic of the Bound Silenus* of El Jem¹⁴ are four *cantharoi* from which vines are springing (Figure 12.5A). Moving around the mosaic we see them at each corner, as if they were standing upright. Our gaze follows their vertical ascent from the interior of the *cantharos* upwards, the vines reaching out for one another, and finally forming an arbor. In this optical illusion, the arbor seems to shade the whole mosaic beneath. It is as if the observer has turned his gaze up toward Bacchoi picking the hanging grapes while birds peck at

Figure 12.4 House of the Boat of the Psyche, Daphne near Antioch, *Opora, Agros, and Oinos at Dinner*, mosaic, now located in the Baltimore Museum of Art.



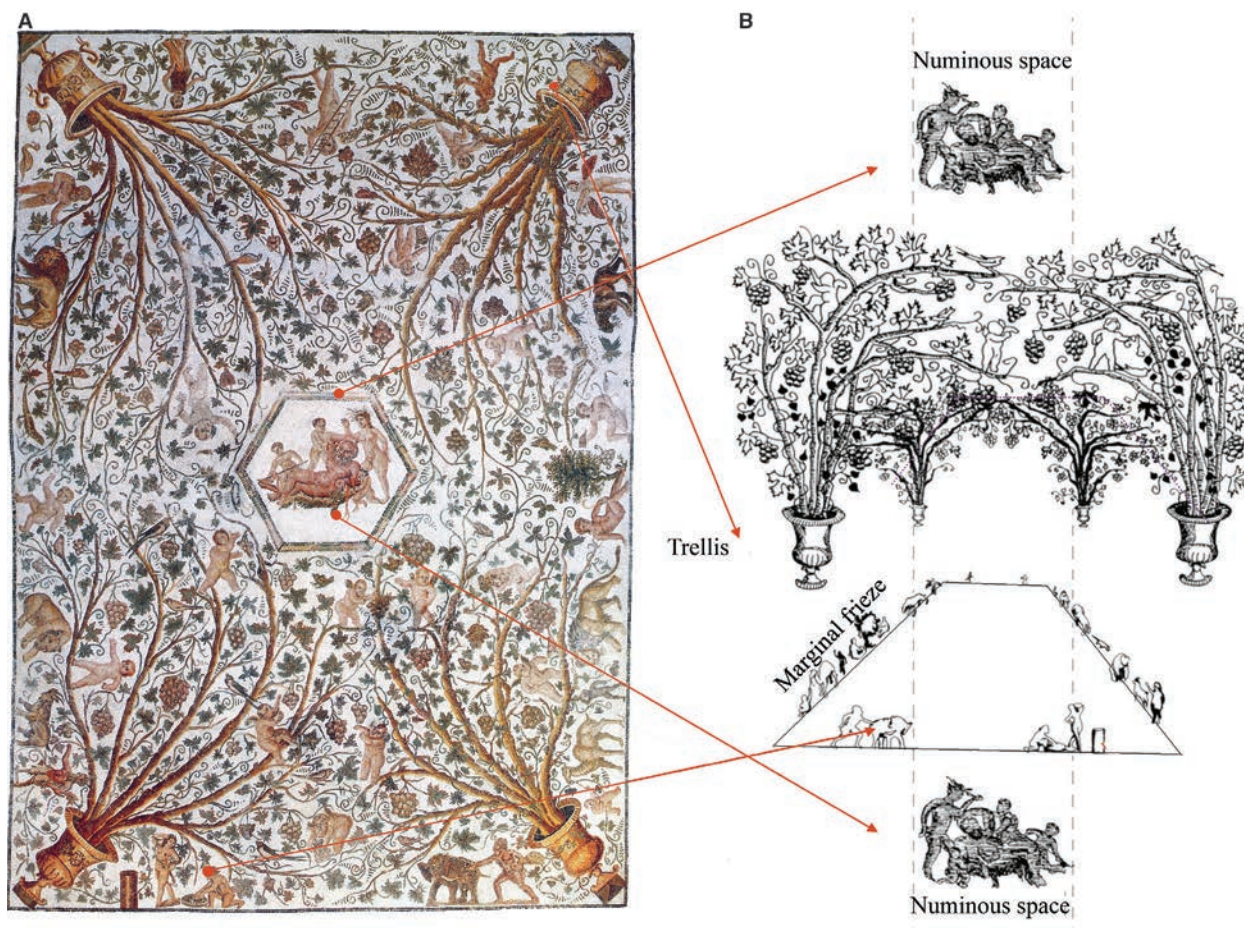


Figure 12.5A *The Bound Silenus*, El Jem, Tunisia, mosaic El Jem Archaeological Museum, Tunisia.

Figure 12.5B *The Bound Silenus*, El Jem, Tunisia, diagram.

them. At the apex of the arbor, the center of the composition, lies a reclining Silenus bound by two Cupids and a Maenad, the group carefully set apart from the rest of the mosaic by a hexagonal frame that allows the mosaicist to introduce a numinous area in the very center space of everyday life. The composition conjures up a highly captivating virtual, tridimensional world, yet it is anchored in the real space of the viewer.

The illusion is of a continuation of the immediate space of daily life into the realm of Dionysos, for the arbor is grounded by a marginal frieze that evokes this world. The animals, which run along the frieze, belong to Africa and Asia and

their followers belong to the Dionysiac pageantry: this is the journey of Dionysos around the world. Recreated in an axonometric drawing, the frieze runs around a vine arbor that looks like a courtyard covered by a vine canopy. The projection of the four corner vines supporting the canopy along the diagonals leaves an open space in the center, recalling an *oculus* at the top of a dome, seen as if reflected in a mirror on the ground. It could also be seen as a cavity opening into the earth, so that the divinity appears either above or in the chthonian world below. Dionysos, remember, is the god who travels between these two realms. Thus the mosaic introduces a vertical shaft at its center that links

chthonian and Olympian worlds and cuts through the human world of the *domus*.

Understood in this way, the composition places the observer in three spaces, each of which represents the world of Dionysos in a different visual scale. Let me introduce a translation of these three spaces of experience into the contemporary visual language of perspective: the human scale is experienced in a temporal sequence of everyday life in the vine arbor; the scale of the world is found in the marginal frieze; the immeasurable scale of the divine is evoked in the central framed figure of the bound Silenus. These three spaces collapse into one (Figure 12.5B), because they reveal different aspects of the presence of Dionysos in nature, and these can only be experienced by humans at different times. This mosaic, then, reveals multiple aspects of Dionysos. The marginal frieze expresses a two-dimensional linear space that delimits a finite period of time, evoking Dionysos' triumphal procession in this world. While the observer walks around the mosaic, he can share in this experience as if taking part in a Dionysiac procession. The vegetative canopy composed of the four vines constitutes a realistic three-dimensional space at the scale of everyday life. The Bacchoi testify to Dionysiac presence, as does the bursting forth of the vines, a miracle that occurs suddenly and immediately. The numinous space where Silenus reclines is of another nature, where human time and space do not apply. Two trajectories capture the divine presence: first, the linearity of movement, namely the god's voyage around the world that the human experience shares, and second, the upward movement of bursting vegetation.

A second example of an immersive image is in the House of Thetis and Peleus at Cherchel, Algeria.¹⁵ This partially preserved mosaic, dated to the fourth century, has a similar layout to the El Jem one and depicts an allegorical scene of the harvest with Cupids playing harvesters around a vine trellis (Figures 12.6A; 12.6B; 12.6C). In the corners appear busts of the four Seasons in circular medallions made of vine twigs. In the center of the trellis, seen from above, a sleeping Silenus (whose scale is larger than that of the harvesters) is surrounded by Cupids, who tie him with garlands. The Seasons and Silenus, by their scale and their location in the midst of the vine trellis, seem to drift into a realistic scene and immerse it. In this floor decor, the harvesting scene, a realistic three-dimensional space at the scale of everyday life, is embedded within a numinous atmosphere, created by the Silenus and Cupids, transporting the viewer into a virtual Dionysiac realm.

Let us turn to a unique creation outside of Africa: a floor mosaic from Vienne in France (Sainte-Colombe) of the second quarter of the third century depicts Lycurgus ensnared by the god's vine shoots (Figure 12.7A).¹⁶ In the apse of this monumental vine carpet are depicted four Dionysiac figures reclining in a rocky setting covered by vines while Lycurgus struggles in the center, hacking with an axe at the tangle of vines into which Ambrosia, follower of Dionysos, was transformed (Figure 12.7B). This grandiose mosaic underlines Dionysos' power over the reckless king, who appears very small and almost disappearing among the lavish vine tendrils, a visual prelude to his tragic and hopeless



A

Figure 12.6A House of Thetis and Peleus, Cherchel, Algeria, drawing of mosaic, Ferdi 2005, pl. 16.



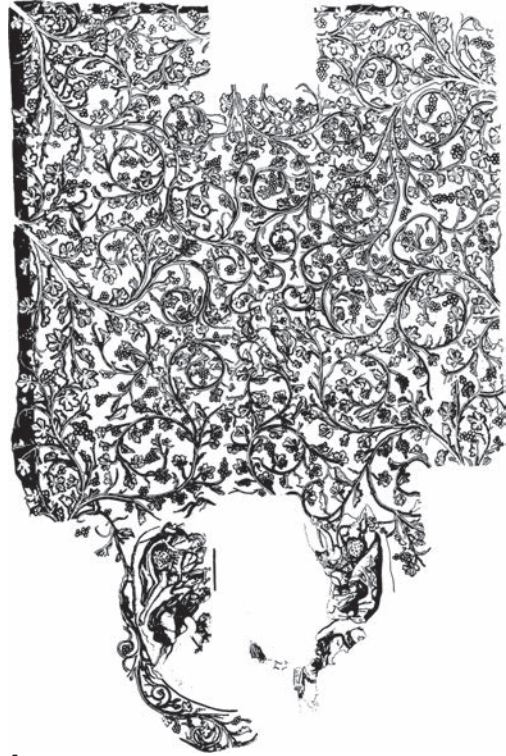
B

Figure 12.6B House of Thetis and Peleus, Cherchel, Algeria, detail of mosaic, in the Parc de la mosaïque, Cherchel, Algeria.



C

Figure 12.6C House of Thetis and Peleus, Cherchel, Algeria, detail of mosaic, in the Parc de la mosaïque, Cherchel, Algeria.



A

Figure 12.7A Lycurgus, Vienne, France (Sainte-Colombe), drawing of mosaic, R. Prudhomme, pl. LXXVIII, Lancha 1981, in the Saint-Romain-en-Gal, Museum of Archaeology, France.



B

Figure 12.7B Lycurgus, Vienne, France (Sainte-Colombe), detail of mosaic, Lancha 1981, in the Saint-Romain-en-Gal, Museum of Archaeology, France.

fate. The vine tree canopy, which both imprisons Lycurgus and surrounds the indifferent Dionysiac banqueters, constitutes a realistic three-dimensional space at the scale of everyday life. The evocation of the god in the serpentine tendrils is similar to the African vine trellis with its springing vines and their miraculous power. Christine Kondoleon points out that “the merrymaking of the mosaic revelers was clearly meant to set the tone for the guests who actually dined in supine position at a sigma-shaped table.”¹⁷ Thus, this mosaic too, invokes an open-air *symposium* in a flowery meadow.¹⁸ Unfortunately the mosaic was found without any archaeological context, so that we do not know if the room opened onto a garden. Nevertheless, recent archaeological discoveries in Gaul give evidence of outdoor vine-covered settings similar to Pompeii’s outdoor *triclinia*,¹⁹ so we may conjecture the existence of a real garden nearby.

In the House of Icarios in Oudna, Tunisia,²⁰ one of the most complete and wealthy *domus* that has been excavated in Africa, the *Dionysos’ Gift of the Vine to Icarus* mosaic (Figures 12.8A; 12.8B) depicts three pictorial spaces embedded within each other, similar to the *Bound Silenus* mosaic. Couches, placed on a U-shaped geometric pattern floor, would have permitted close scrutiny, including birds and winged putti walking along the edge, making the margin of the mosaic into a promenade. Each guest could see a part of that promenade in front of him or her and conclude that it continued around the entire frame.²¹ As in the *Silenus* mosaic of El Jem, the frieze introduces a geographical scope that goes far beyond the scale of the room, here running along four stems of vine bursting

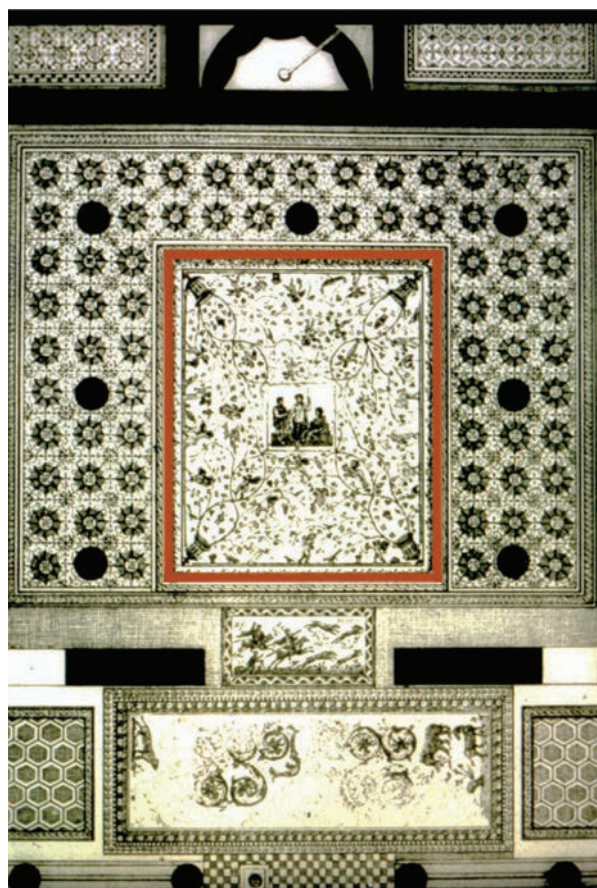


Figure 12.8A House of Icarios, Oudna, Tunisia, plan of mosaic in context with adjacent pavements, Gauckler 1897, fasc. 2, t. III, pl. xx.

forth from four *cantharoi*, one located in each corner. The tendrils intertwine into a canopy and then assume a rectilinear form to frame a central scene depicting Dionysos’ gift of the vine to Icarus. As a result, the vine and central scene are not distinct, as in the *Bound Silenus* mosaic of El Jem, but they are literally entwined; even Dionysios’ *thyrsus* merges with the tendrils. These subtle compositional devices link the realm of the gods (the central scene) to that of humans (the vine and birds), perhaps deliberately emphasizing Dionysos as an epiphanic god who seeks encounters with humans – an apt theme for a drinking party.

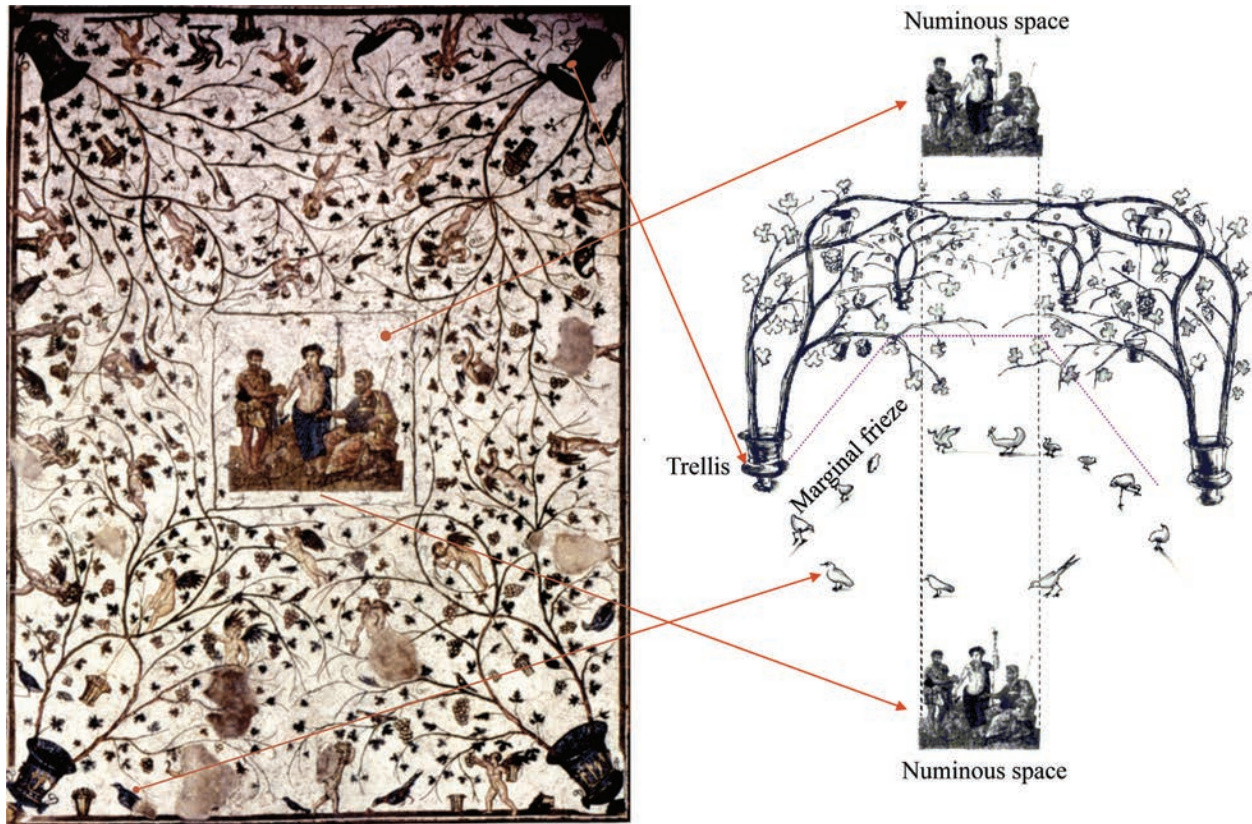


Figure 12.8B House of Icaros, Oudna, Tunisia, mosaic and diagram, in the Bardo National Museum, Tunis, Tunisia.

Guests arriving at this *oecus* would have traversed an open garden space with actual plants, possible vines on trellises and arbors, and perhaps even small animals, to end up in a room that deliberately echoed such outdoor spaces. As a result, the interior space must have felt familiar and inviting in spite of its contrived and fictive character. It was indeed an impressive, monumental room with seven columns in a U-shaped plan that precisely relates to the decorative mosaic floor on which they rest (Figure 12.8A). Furthermore, the four columns at the corners were near enough to the figural mosaic to lend the impression of serving as architectural supports or backdrops to the four *cantheroi* depicted in the mosaic. The sense of the vine rising

overhead, as previously discussed, was likely increased with the *cantheroi*'s visual connection with the columns, which were stuccoed and painted with putti among vine tendrils.²² Thus, the physical three-dimensional architectural space and the two-dimensional mosaic decoration had a reciprocal relationship, with each effectively enhancing the other.

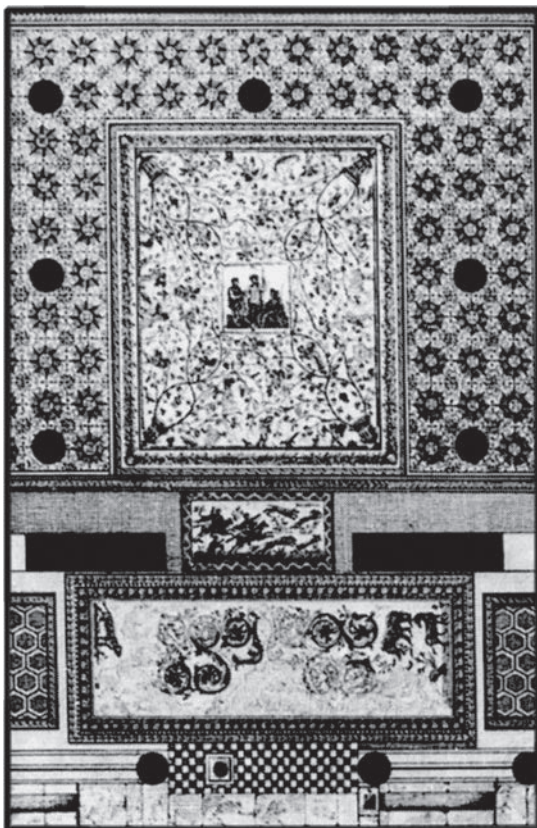
The mosaic, therefore, is a paradox of multiple plans and spaces within an architectural setting that only increases its ambiguity. The vine and its figures spread over the floor so that one must look down to see it, yet the image appears to reflect a canopy overhead in which the gods are seen as though through an opening to the sky. Any viewer must have been immediately

put off balance, the effect only increasing with the consumption of wine, a gift from Dionysos.

THE IMMERSIVE GARDEN SPACE

Two mosaic pavements that the visitor confronted before arriving at the Oudna banquet room were not simply decorative because their subjects appear to have been deliberately chosen to express different stages in the conquest of culture (Figure 12.8C). The first depicted foliage inhabited by animals, the creative

force of nature, and a second revealed a hunting scene, an important act enabling young men to learn and master their passions in order to attain civility and adulthood. Finally, a vine arbor and the figure of Dionysos in the reception room evoked nature as the intermediary between the human and the divine, an appropriate conceit in a place where cultivated pleasures were pursued among friends. Thus, the evocation of the civilized virtues of the hunt was enclosed by the garden and the mosaic of Icarus, in other words between the presentation of real vegetation and its representation. The care that was taken to stress



Garden

Nature
extending
from the
human to
divine scale



Mosaic of
Dionysos' gift
of the vine to
Icaros

The hunt
as a way to
attain
civility



Hunting
scene

Creative force of
nature



Foliage inhabited
by animal

Garden

House of Icaros, mosaic pavements which followed one another under the steps of incoming visitors

Figure 12.8C House of Icaros, Oudna, Tunisia, progression of mosaic pavements.

the passage between the presentation and the representation of nature should be noted. In the garden, nature could be directly acknowledged, whereas in the *oecus*, nature could only be experienced through the medium of the image. But in both cases, the *oecus* and the garden are immersive sensual spaces.

The only ancient garden of Roman Africa that has been systematically excavated is that uncovered by Wilhelmina Jashemski at Thuburbo in Tunisia.²³ As a result, our knowledge of actual gardens for this region is minimal, although there is a small number of texts describing gardens of this period.²⁴ In the novel *Leucippe and Clitophon*, Achilles Tatius, an author of the second century AD, describes a private garden, a *paradeisos*.²⁵ This garden, enclosed by a portico, had trees of different species, vines, a fountain, and a pool where water reflected



A

Figure 12.9A The House of the Aviary, Carthage, Tunisia, mosaic detail, in the Bardo National Museum, Tunisia.



B

Figure 12.9B The House of the Aviary, Carthage, Tunisia, reconstruction.

flowers and trees, and where birds and animals lived. Pools of water were liminal spaces because they reflected objects from above and at the same time represented depth (seawaters were believed to be paths to the underworld). The rise and the fall of this infernal water defined the rhythm of the seasons, which are the expression of the infinite cycle of death and life.

In Carthage, Tunisia, the *Aviary* mosaic (Figure 12.9A–B) that decorated a magnificent *domus* gives testimony of gardens being spaces where the blossoming of nature shows the tangible presence of the gods.²⁶ The House of the Aviary is by far the most complete and richest *domus* in Roman Africa (Figure 12.10). Located on a hill overlooking Carthage, the villa is divided into two parts: an area centered on a peristyle at the west, and a unit with a reception room in the east. In the middle of the peristyle was a planted space of octagonal form surrounded by the *Aviary* mosaic. Four openings in the mosaic indicate where trees were planted (Figure 12.9B). Thus, the peristyle was comprised of four trees, a mosaic depicting cut branches, and finally an octagonal garden. The *Aviary* mosaic decorating the peristyle is an elaborate celebration of nature in all its multifarious glory, a mix of flora and fauna arranged randomly, at the apparent caprice of the artist. This intricate ensemble contains representations of exotic birds (peacocks and partridges), animals (gazelles, porcupines, and hares), and objects (a *pedum* [a shepherd's crook] and syrinx pipes). As previously discussed, such mosaics when physically close to actual gardens reflected and enhanced each other. The garden lent its physical reality – its plantings, living creatures,

sun-dappled leaves, scents, and sounds – to the inert mosaic but the mosaic, with its profusion of branches, fruits, and animals (plants and animals not in the actual garden), must have increased the visitor's experience of the natural environment beyond the enclosed peristyle.

Among the paintings on garden walls of earlier Roman houses in the Vesuvian area, plants, shrubs, and birds lent the illusion that they mirrored the real garden, extending the space rather than giving a sense of enclosure. These representations offer a vision of the garden at a moment of peace and abundance, where fountains, gods, animals, and plants coexist in harmony. The paintings do not depict a particular garden, but rather an ideal. We may understand that the images of isolated shrubs repeated along the plinths of the walls of gardens and in different rooms of the house are a *topos* of a garden. A cut branch could function in the same way, as a sign, which constitutes a *topos*, the repetition of which creates a pleasing pictorial composition. The *Aviary* mosaic at Carthage, therefore, represents a common tradition of Roman garden design in which presentation and representation have a symbiotic relationship that enhances each.

The visible cuts of the flowery branches in the *Aviary* mosaic (unlike the branches of the *stibas* that show no signs of cutting) signals human action and could allude to horticultural practices like grafting and pruning that are indicators of a productive and bountiful landscape controlled by man. The motif of cut branches is also found on tomb paintings, perhaps evoking the mythical Elysian Fields or even the actual gardens that were constructed near the grave of

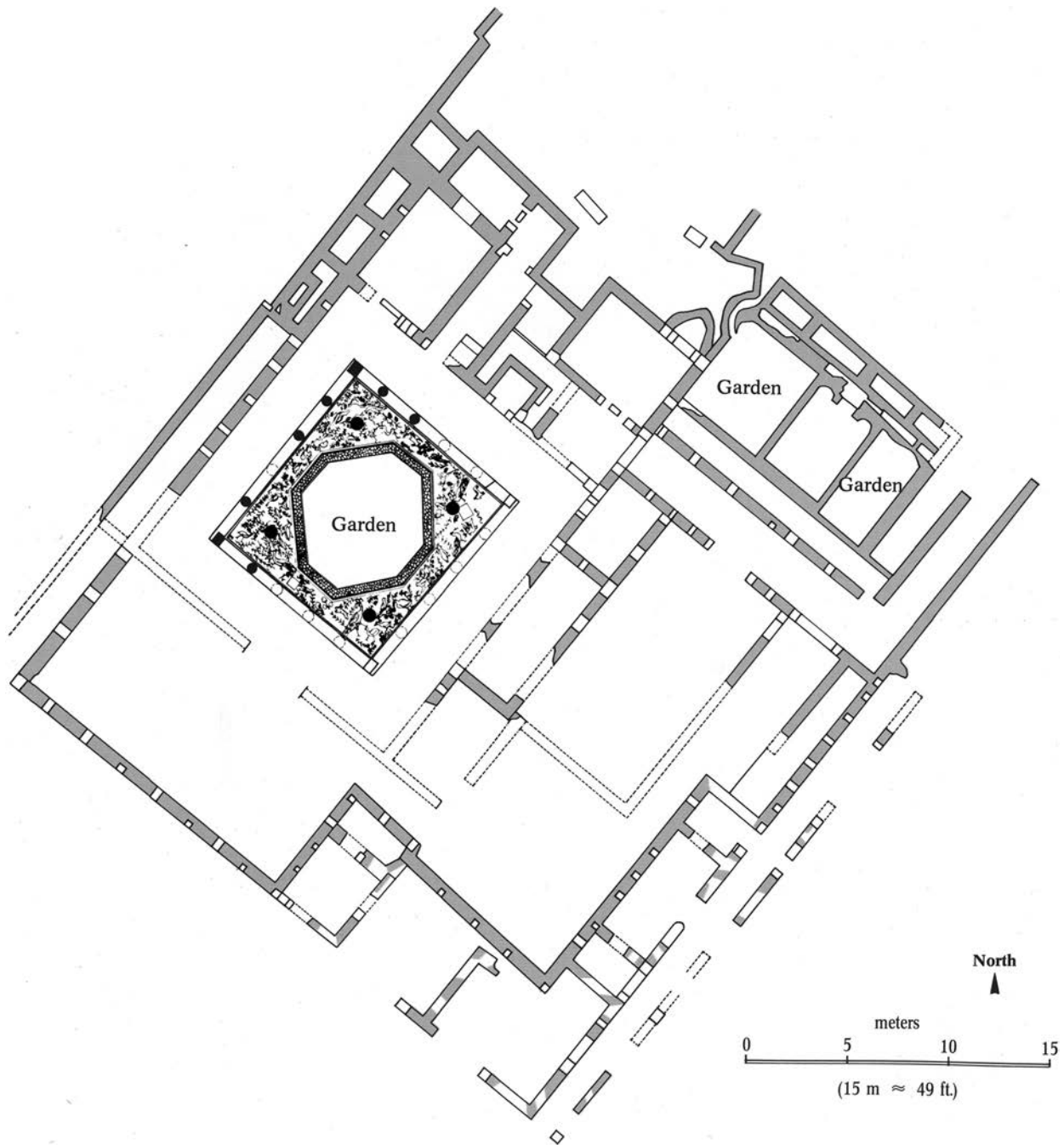


Figure 12.10 The House of the Aviary, Carthage, Tunisia, plan (M. Palmer modified from Ch. Saumagne in Ennabli and Ben Osman 1983, p. 145).

the deceased. Thus, the cut branches in these mosaics inhabited by Erotes chasing domestic animals or Venus picking flowers with Eros likely alluded to sacred flowery meadows. It is a world inhabited by the divine and at the same

time, because of having been cut from living plants, a nature subjected to the perpetual cycles of life and death.

Man's relationship to nature was intimate and powerful, as witnessed not only by the number of gardens and garden

designs found in Roman houses but also by numerous ancient writers. The garden held a special place in the literary compositions of authors like Cicero, Ovid, and Juvenal, who exploited the garden for its literal and figurative meaning.²⁷ The garden suggested a poetical vision of nature inhabited by the gods, conducive to thoughtful reflections and intellectual discussions.²⁸ The relevance of these Augustan and post-Augustan reflections on gardens to a period contemporary with the *Aviary* mosaic is confirmed by the third-century African pastoral writer Nemesianus, who employed nature and landscapes not merely as backdrops but as metaphors for human actions and desires such as communing with gods, sexual conquests, and the manly art of hunting. That is, man's relationship to nature and the literary traditions that both reflected and shaped his thinking were essentially unchanged over the course of the Roman Empire. Of course, it is impossible for us to know how an ancient visitor responded to specific gardens or imitations of gardens (in the form of, for example, mosaics or wall paintings) but ancient writings offer a *communis opinio* of possible expectations and meanings conveyed by plants, trees, animals, and pools of water. The writings of Statius (late first century AD), in particular, illuminate the manner in which the cultural elite perceived gardens and nature. In *The Tree of Atedius Melior*, Statius makes a tree the centerpiece of a story about the love of Pan for a nymph. Nature and its attributes permeate this tale of love. From the image of a single tree Statius envelops his readers in a complicated romance in which every living part of the forest has symbolic significance. The presence

of the tree bending over a pool is taken as testimony of the everlasting presence of a nymph, to invite the gods to dwell in the house. Although written three centuries before in another place, Statius offers a possible clue to the importance of the four trees in the portico of the *Aviary* mosaic. Statius' mythopoetic tale sheds light on the way that the mosaic of *The Aviary* may be interpreted: the garlands, the peacock, the flute of Pan, and the *pedum* are more than mere artifacts; they are symbols attesting to a Dionysiac presence. We might imagine, for instance, that the garland suggests a meadow, adorned by the multicolored plumage of the peacock, both common images of classical rhetoric. The flute of Pan and the *rhyton* are instruments of the cortège of Dionysos, all evoking the rustic world of classical whims and bucolic joy amid architectural settings.

Achilles Tatius' description of a pool in the middle of a luxurious garden, mentioned above, allows us to push further the interpretation of the garden of the *Aviary*. The peristyle of the House of the *Aviary* follows the same layout but with a flower garden in place of the central pool, and the *Aviary* mosaic in place of the grounds of the garden. Both the *Aviary* composition and Achilles Tatius' description recall the layout of the arbor vine mosaics of El Jem and Oudna, with their four vine shoots springing out of crater vases, spreading and intertwining their branches and filling the whole composition with their bountiful grapes in the middle of which is set a numinous space. Opposing the geometry that governs their layout is the disorder of the twigs intertwining. The first reflects human ordering of the nature; the second, the spontaneity

of nature imbued with a charged atmosphere coming from a divine source.

In sum, the peristyle garden of the House of the Aviary engaged the viewer in a sophisticated play among three different experiences of nature: the mundane experience of nature with the trees planted in each corner of the peristyle and the life-size depiction of animals and birds; the metaphorical nature with the flute of Pan, the garland, and the peacock alluding to mythopoetic fictions; and finally the divine suggested by the bursting forth of the trees and by the cut branches as metonymy of the Elysian meadows.

A Garden as a Metaphor of Vergil's *Nympharum Domus*

Another clear example of the continuity between Augustan poetry, painting, and gardens and late provincial North Africa can be seen in the House of the Nymphs of Nabeul, Tunisia, dated to the fourth century AD, where the interior walls of an apse-shaped pool in the garden was decorated with a mosaic depicting a mask of Ocean among fishes and with an inscription, *nympharum domus*, perhaps alluding to a passage from Vergil's *Aeneid* (1.168) when Aeneas and his companions landed on the shores of Libya at the "nymphs' grotto" (Figures 12.11A; 12.11B).²⁹ This inscription, from which the house receives its name, must have prompted not only thoughts of a cave of the Nymphs but also the very shores of North Africa where Aeneas met Dido. When the owner of the house composed his *viridarium* with a basin referring to a mythical tale particularly familiar to Africans, he was carrying on a Roman tradition of recreating sites in gardens and landscapes by

composing statues, inscriptions, paintings, mosaics, plantings, and water features to evoke a geographical lore.³⁰

According to Servius, the famous fourth-century African commentator of Vergil's *Aeneid*, the *ekphrasis* of the cave of the Nymphs is a *topothesia*, a description of an imaginary place that Vergil invented. He warns the reader, therefore, not to confuse a *topothesia* with a *topographia*, the description of an actual place.³¹ Likewise, we may view this garden as a three-dimensional *topothesia* where Vergil's tale of Dido and Aeneas is recalled through the placement of key figures at appropriate places: an inscription; a mask of Oceanos in the garden basin; and the ivy motifs decorating the floors of the galleries that framed the garden, perhaps suggesting climbing plants associated with caves. Furthermore, in the northern part of the house paintings depicting a city, a port and its seashore with fishermen, a boat arriving or departing, and a hunting scene (Figure 12.12) decorated a basin located in a small courtyard leading to a *cubiculum* and opening toward the peristyle garden. The artist used a bird's eye view to convey the vision of a prosperous city by the sea, as Vergil did in his written description of the city of Carthage as seen from above.³²

Hence, the path through the garden and the courtyard was designed to convey a spatial interpretation of Vergil's tale. When walking along the peristyle garden or lying in the *oecus* opening toward the garden, the viewer could gaze at the seashore or imagine it, as the house was oriented toward the sea. On looking at the seashore through the garden and the courtyard, the viewer could not see the port of Neapolis but could imagine the mythical

Figure 12.11A House of the Nymphs, Nabeul, Tunisia, mosaic on pool wall.



A

Figure 12.11B House of the Nymphs, Nabeul, Tunisia, detail of mosaic on pool wall.



B

Carthaginian port that Aeneas berthed with his companions. The decor of the absidial *nymphaeum* recalled by metonymy the shores of Carthage crowned by a dark forest, portending the tragic fate of Dido.³³ The theme of passionate love echoes in the rest of the house with the mosaic of the *Rape of a Nymph by a Satyr* (Figure 12.13A) and the mosaic *Neptune and Amynone* (Figure 12.13B) that decorated two *cubicula*. These seduction scenes take place in

the typical *locus amoenus* whose main components are the tree, the stream, and the rock.³⁴ In fact, the garden of the House of the Nymphs is echoed in various evocations that connect with one another and reflect the pavements, which adorn the northern aisle of the *domus*. These interlacing themes create an artificial nature that oscillates between the numinous and the civilized, between the garden and the house.³⁵ The garden of the House of the



Figure 12.12 House of the Nymphs, Nabeul, Tunisia, painting.



A

Figure 12.13A House of the Nymphs, Nabeul, Tunisia, *Rape of a Nymph by a Satyr*, mosaic, in the Nabeul Museum, Tunisia.



B

Figure 12.13B House of the Nymphs, Nabeul, Tunisia, *Neptune and Amymone*, mosaic, in the Nabeul Museum, Tunisia.

Nymphs at Neapolis attests that a fourth-century AD garden in a provincial town could be designed according to a specific theme and intended to immerse the viewer in an ideal nature embedded with literary connotations, thereby transforming the garden into a landscape of allusion.

A villa outside of Rome serves as an example of how the subject of a mosaic floor in an *oecus* may reflect the garden and its decoration. On the Via Gabina in a rural area about 14 kilometers from the center of the capital was an impressive villa in which one of the rooms facing the peristyle garden contained a first-century BC mosaic emblema (surrounded by a later second-century black-bordered white mosaic floor). This room was used for dining, with the padrone's couch positioned on axis not

only to the figured mosaic of the *Rape of Hylas* (Figure 12.14) but also to a door opening to the peristyle garden and to a possible partially rock-cut pool. An actual pool of water in the peristyle, therefore, may have deliberately echoed the rocky and watery landscape of the mosaic. Thus, the rock-cut fountain amid flowers and trees was the garden version (*ars topiaria*) of the literary bucolic *topos* depicted in the mosaic.

These examples highlight how gardens could express at least three fundamental dimensions of space in a Roman *domus*: the materiality of the world of daily life (animals, birds, vines); the space of culture (expressed by the cave of the nymphs evoking the meeting between Aeneas and Dido in Neapolis or the rape of Hylas in the Villa Gabina outside of Rome); and

Figure 12.14 Site 10, Villa, Via Gabina, *The Rape of Hylas*, mosaic, in Palazzo Massimo alle Terme di Museo Nazionale.





Figure 12.15 Villa of Dominus Julius, Carthage, mosaic, in the Bardo National Museum, Tunisia.

finally, the divine world (signified by cut branches, the presence of Oceanus in Nabeul, and the nymphs in Gabina). These three experiences of the garden are represented in numerous garden mosaics, for example: the *Mosaic of Lord Julius* in Carthage in which the *domina* and the *dominus*, entertaining in a garden, conjure up daily life (Figure 12.15);³⁶ the mosaic of Oued Athmania, Algeria, depicting a lady sitting under a tree holding a fan with an inscription *Filosofi locus*, informs us that gardens were places for intellectual delight;³⁷ the “Jonchée” mosaics with Venus, Eros, and putti picking flowers (Figure 12.16), or disguised as hunters attempting to snare birds (Figure 12.17), or Nymphs dancing in front of a rose garden spilling roses from a basket or pouring water from a vase (Figures 12.18A; 12.18B) are evocative of mythological gardens;³⁸ and the *Mosaic of the Figured Viridarium*



Figure 12.16 Jonchée, Venus, Carthage, mosaic, in the Bardo National Museum, Tunisia.



Figure 12.17: Jonchée, putti hunting, Carthage, mosaic, in the Antiquarium de la Volière, Carthage.



A

Figure 12.18A Private baths at Sidi-Ghrib, nymph with roses, mosaic, in the Carthage National Museum, Tunisia.



B

Figure 12.18B Private baths at Sidi-Ghrib, nymph pouring water, mosaic, in the Carthage National Museum, Tunisia.

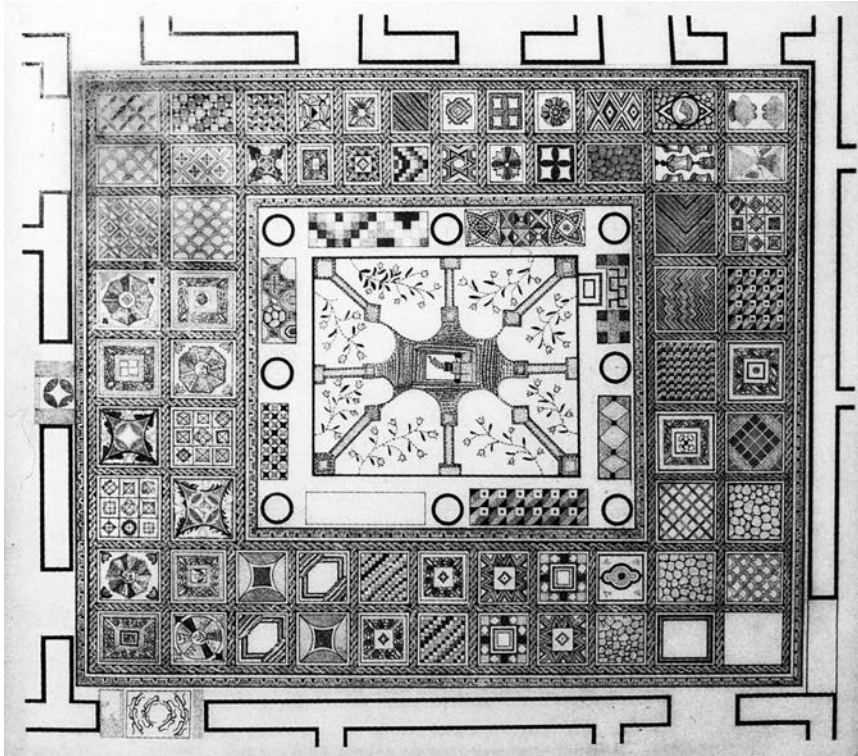


Figure 12.19A House of the Viridarium with niches, Pupput, Tunisia, plan.



Figure 12.19B House of the Viridarium with niches, Pupput, Tunisia.

of Pupput (Figures 12.19A; 12.19B),³⁹ confirming how gardens were also places of worship. Such examples are valuable testaments to how Romans throughout the

empire traditionally and instinctively had an intimate relationship to nature that surrounded them, whether it was natural landscapes or manmade gardens.

CONCLUSION

The mosaic pavements I have considered, dating primarily from the mid-second century to the fifth century AD, demonstrate the existence of a pictorial language deeply rooted in a tradition of creating “landscapes of allusion” that go back to the Hellenistic period.⁴⁰ In other words, these pavements are representatives of Roman “ways of making, seeing and experiencing space and time.”⁴¹ The striking mosaic of the Jonchée of Cherchel epitomizes the ability of Roman artists to convey a place in the plural, as a sum of disjointed experiences whose associations create a contrived space. It is a powerful image because it works as a metonym: the unframed scattering of branches alludes to the blessed times when men were living in communion with nature and the gods and at the same time causes the viewer to confuse the virtual image with the real space. The arbor floors with their lavish vines imbued with a charged atmosphere emanating from a divine source convey the vitality of actual gardens.

Indeed, with the help of ancient texts, such as Pliny’s letters and Statius’

poems, the understanding of this kind of Dionysiac imagery, so popular in Africa, brings to light the complex interlocking experiences of gardens, such as gazing up and down, and moving in time and space. A Roman language of garden design existed where architecture, art, and plants were combined in order to create a full-scale imaginary space that evokes mythical tales and places.

But I would like to stress that the garden is not just a metaphorical space but also a living organism. Flowers and trees are physical presences and, at the same time, manifestations of the divine. Unlike the mosaics in which verticality is conjured up by a virtual image, in a real garden verticality is embodied by the physical plants growing toward the sun. Although art could entice the viewer to contemplate the gods, it could not give rise to life. It is the garden that is the expression of life itself. Gardens allowed the forces of life to emerge from the underworld and spring forth in the very heart of the house, and mosaics and other decorative elements, however elaborate and sophisticated, could only be reflections or allusions of such natural environments.

Chapter 13

SCULPTURE IN ANCIENT ROMAN GARDENS

Kim J. Hartswick

SCULPTURAL DISPLAYS AND settings are notoriously difficult to reconstruct even in the best of circumstances because once a piece of sculpture has been removed from its place of discovery, it is impossible to recreate its original setting, unless a specific find-spot has been recorded. Because sculptural displays within gardens form the object of our attention, it is not enough that a work has been discovered within a villa or a house; it is necessary to know for sure that it was in a garden or at least physically associated with a garden. We should, therefore, consider sculptures found in rooms facing gardens or in porticoes surrounding gardens as “garden statuary” because porticoes and the rooms associated with them were clearly designed to take advantage of the gardens, that they faced.¹

One cannot overestimate the reciprocal relationship between gardens and architecture because, as architecture defined perhaps the boundaries of all Roman gardens, garden plantings and their sculptural displays reflected and responded to the architecture to which they were so intimately tied. Among the best illustrations are the houses and villas of the Vesuvian region but there are equally impressive examples outside Campania.

For example, sculptures found in the second-century AD villa of Herodes Atticus near the ancient city of Eua (modern village of Astron) in the Peloponnesos demonstrate a close relationship with their architectural setting.² In the north portico of a peristyle before



A

Figure 13.1A Achilles and Penthesilea, Villa of Herodes Atticus, Eua (modern Astron) Peloponnesos, mosaic, photograph, after Spyropoulos 2001, p. 187, pl. 5.

a mosaic pavement depicting a scene of Menelaos carrying the dead Patroklos, based on Homer's *Iliad*, stood a marble statue of the same subject. Likewise, in the south portico was a marble group of Achilles and Penthesilea (Figure 13.1B) that was displayed before a mosaic pavement depicting these same protagonists (Figure 13.1A). But, even without such close ties between sculpture and its architectural surroundings, it seems clear from archaeological evidence that, in general, peristyles and sculptures were intimately linked. For example, in a villa at Desenzano del Garda in northern Italy, the second-century AD date of the sculptures relates to when a peristyle was added. In other words, the addition of a peristyle may have provided a stimulus to decorate a villa or townhouse with sculptures, or it may have been a desirable architectural addition for a pre-existing sculptural collection.



B

Figure 13.1B Achilles and Penthesilea, Villa of Herodes Atticus, Eua (modern Astron), Peloponnesos, marble group, Spyropoulos 2001, p. 191, pl. 9.

Although not all sculpture set up within a house or villa was associated with a garden or an outdoor setting, when find-spots are recorded, virtually all sculptures in domestic settings do come from gardens, the porticoes surrounding them, and on occasion rooms that look toward garden or landscape settings. According to Neudecker, "no specific rooms were provided for extensive assemblages of statues."³ Few sculptures, indeed, have been recorded as coming from upper rooms, *cubicula* (bedrooms), kitchens, or even *atria*, although sculptures could have been displayed in these locations, as witnessed

by Pliny's disparaging comment of "statues that share our nights with us," that is, sculptures set up in *cubicula*.⁴ Although *atria* were formal display areas, they were usually sparsely furnished with few, if any, sculptures, perhaps to allow for circulation of guests.⁵ For example, in the House of Sallust (vi.2.4) and the House of Obellius Firmus (ix.14.3–4) in Pompeii sculptures were used as fountain displays in or on the edge of the *impluvium* and thus did not impede foot traffic through the *atrium*. Exceptional finds are, for example, the eleven bronze fountain statuettes in the Villa of the Papyri near Herculaneum, which surrounded the *impluvium* as if it

were a garden pond (Figure 13.2) and a replica of a classical ephebe type called Narcissus that was found in a private *cubiculum* of one of Tiberius' villas on Capri.⁶

Other small bronzes, called *corinthia*, could be set up on banqueting tables, side tables, treasuries, and cupboards, as, for example, a vendor carrying a silver tray that may have been used to display pastries during a banquet (Figure 13.3).⁷ Certainly many such statuettes and figurines were considered precious objects to be displayed perhaps only on special occasions, while others, such as a larger bronze lampstand in the form of an



Figure 13.2 Amorino dolphin fountain statuette, Villa of the Papyri, Herculaneum, bronze sculpture, Jashemski 1993, fig. 345.



Figure 13.3 Statuette of a naked man carrying a silver tray, silver-plated bronze. Museo Nazionale di Napoli, inv. 143761.



Figure 13.4 Statue of an ephebe made into a lamp-stand, House of the Ephebe, 1.7.10, Pompeii, gilded bronze. 1.50 m. Museo Archeologico Nazionale.

ephebe, likely stood permanently in the garden (Figure 13.4).

Yet, in the context of this study, the readily movable objects need not be considered because *corinthia* may have been at best *objets d'art* to be admired individually rather than collectively, and at worse as merely cheap surrogates of larger sculptures.⁸ *Corinthia* and other small-scale statues were associated perhaps with specific places or occasions within a town house or villa setting, whereas large-scale

sculptures were inserted, more or less permanently, into a much wider architectural concept, usually, if not always, associated with a garden setting. Thus, privately owned, large-scale sculptures were perhaps always meant for semi-public display so that they were found primarily in spaces accessible to guests – in particular, gardens and porticoes.

Any study that relies heavily on archaeological investigations is at the mercy of not only the usually serendipitous nature of discoveries but also on their proper recording and publication. In the best of circumstances it must be acknowledged that what remains is merely the final resting places of objects. Nicholas Purcell has put it more bluntly that sculpture(s) “is the detritus” or are “fragments” or “shreds of a palimpsest” of the decorative programs of garden displays.⁹ Thus, we receive, at best, only a partial glimpse of the past.

Pompeii and the other areas destroyed by volcanic eruption in AD 79 are unusual archaeological sites because the objects left behind became frozen in time and space. This is not the case with most excavated sites that have been occupied in the post-antique periods, causing the disturbance of archaeological material by way of complete removal, destruction, or the repositioning of objects. Thus, the find-spots of such objects do not always indicate their original ancient locations.¹⁰ To make matters even more difficult, it cannot always be said with certainty that the sculptures that are recorded with established find-spots were in their original locations. Perhaps it can be claimed, with some acknowledged exaggeration, that most sculptures in gardens had a tendency to be moved over the course of their existence. Their positions as revealed by archaeology are simply the

final locations of the sculptures and may have little to do with their original placements. Indeed, as we will discuss, sculptures could have been moved within a villa or town house, or even among different properties.

Not only were sculptures displaced in antiquity, but also buildings were likely torn down and others re-erected. Likewise the plantings themselves must have been changed and continuously rearranged according to individual and contemporary tastes. The natural transformations of the plantings as well as the accumulation and rearrangement of the man-made objects within a garden, therefore, do not permit a single, unique reconstruction. As Horace explains: Just as the house of an architectural enthusiast (an *aedificator*) could be pulled down and put back up again in order to change right angles for curves, so the garden could also be a flexible backdrop to be reinterpreted and readapted according to taste.¹¹ The changing of the shape of a villa or a town house, in fact, must have demanded the rearrangement of the formal gardens whose design followed the contours of the architecture.¹² Furthermore, trees, plants, and shrubs could be considered extensions of architectural members that were believed by Vitruvius to have had their origins in such natural materials.¹³ For example, in a large garden surrounded by colonnades in the villa of Poppaea at Oplontis, set in the soil in front of each column were planting pots, which may have been for vines.¹⁴

Vitruvius also explains, in essentially his only mention of a country villa, that the luxury parts could be constructed according to rules of symmetry given for urban buildings, but in such a way that there is no obstruction to rustic practicalities.¹⁵ It is

likely, therefore, that the plans of a luxury villa and its gardens took their lead from the urban landscape of formal gardens, right angles, colonnades, and axial views.

The ideas of nature and artifice merged in the garden where trees or shrubs could become columns, and where vines entwined “real” columns that appeared to be trunks of trees – a conceit shown clearly in landscape paintings where single free-standing columns are entwined by trees.¹⁶ Arbor-trellises formed ceilings, and tapestries (with architectural designs?) displayed between rows of trees acted like walls.¹⁷ Even statues may have resembled columns, particularly when placed in rows and all the same type. In Domitian’s villa at modern Castel Gandolfo, near Rome, four replicas of the “Pouring Satyr” type were all likely displayed together.¹⁸ The repetitive appearance of such statues must have deliberately echoed rows of columns, lending an almost symbiotic relationship between architecture and sculpture.

Yet, the marble statues that filled the “natural” environments, with their hard material and frozen positions, were in contrast to the flexible and kinetic vines that surrounded them. It is clear that one of Cicero’s brother’s villas included *horti* that were, at least, partially landscaped, for he praises his gardener who “has so enveloped everything with ivy, not only the foundation wall of the villa, but also the spaces between the columns of the promenade, that I declare the Greek statues seem to be landscape gardeners themselves offering their ivy for sale.”¹⁹

Although these ivy-covered statues may have appeared to be lifelike, many of those discovered in garden settings are under life-size. The distinction of these

images from reality would have been obvious – although images of animate objects, they were too small to be “real” – as they stood silent and static amongst living and rustling plantings. Likewise, the herm form employed for portraits of famous men, particularly philosophers and writers, could not be mistaken as “real” individuals. Yet, their “presences,” as will be discussed, were most certainly evoked.²⁰ It is interesting to note in this context that in more modern times, to heighten the realism of garden settings in Georgian England, men would be hired to pose as hermits within the rustic follies of country estates, and it is tempting to imagine that similar activities may have taken place in ancient gardens.²¹ Indeed, Tacitus reported that Nero forced sexually available *matronae* to appear in garden pavilions in groves by the Stagnum Agrippae while prostitutes were in garden grottoes along both banks of the river. These real women (were they not to move?), positioned within garden settings, must have lent the appearance of sculptural decoration. Besides the staging of such erotic encounters, Tacitus also reports the employing of human theatrical props in Nero’s gardens as a grotesque scene of Christians dressed in animal skins being butchered by wild dogs.²² Such an incident likely took place in a “wild,” although completely contrived, landscape planted to evoke the countryside known to have been part of the gardens of Nero’s Golden House in Rome. It is unlikely, however, that such “natural” environments were part of the formal plantings of most gardens.

It was probably in the *horti* and *suburbana* of the late Republic where most of the marble originals as well as other works of art brought to Rome as war booty ended

up.²³ According to Varro, people went to Lucullus’ villas just to see his picture galleries, and Cicero claimed that one could go to Tusculum to see art treasures.²⁴ Pliny singles out the gardens of Servilius, perhaps by his time a public park on the slopes of the Aventine or in the area of the Vatican, where one could see marble statues by well-known Greek sculptors such as Praxiteles and Skopas.²⁵ Yet, private ancient Roman gardens seem not to have been places for the display of “museum quality” works of sculpture.²⁶ That is, the important collections worthy of literary comment were all in public places, either in temple precincts or in public porticoes, and it is noteworthy that Pliny never mentions famous bronze sculptures in private gardens. Although Cicero indicated that art treasures could only be seen in suburban *horti*, he also stated that the true “art museums” were in the Porticus Metelli, the Porticus Catuli, and in the Aedes Felicitatis, the last containing the treasures of Mummius.²⁷ Indeed, there were so many statues and paintings in public places in Rome that Cicero claimed not only the rich but also the poor could enjoy art treasures.²⁸ Some of these statues and paintings, borrowed from clients and even sanctuaries, were put on temporary exhibition by aediles attempting to outdo each other in extravagant public displays.²⁹

Literary references concerning private art collections of this period mention not so much large-scale sculptures paintings, toreutic art (probably small bronzes known as *corinthia*, as previously mentioned), and even glass.³⁰ In this context it is not surprising that artifacts were held in high esteem and proudly displayed in public and private garden contexts. Typical were the *horti* in Rome where,

according to Pausanias, in the public Sanctuary of Bacchus was the tusk of the Calydonian boar, brought to the city by Augustus along with a statue that was set up in the Forum Augustum.³¹

Augustus seemed particularly fond of such artifacts, for we hear that at his park on Capri, instead of statues and pictures, were displayed weapons of ancient heroes as well as a collection of "bones of giants" (*gigantum ossa*), perhaps the fossils of extinct animals or large sea creatures.³² The display of the past in all of its forms was perhaps of greatest importance so that oddities such as bones or ancient armor, as well as copies of old sculptures, and sculptural tableaux of ancient myths were the aim rather than "contemporary" images.³³ For example, Pliny's listing of statues (called *monumenta*) in the garden of Asinius Pollio, a contemporary of Cicero, includes Maenads, Thyiads and Caryatids, Silenes, Centaurs carrying Nymphs by Arkesilaos, Muses by Helikon, Nymphs by Stephanos, double busts of Hermes and Eros, and a Dirce group by Apollonios and Tauriskos, as well as images of gods (Apollo, Neptune, Venus, Jupiter).³⁴ According to Neudecker, Pollio's assemblage probably was typical and may have "satisfied the emotional longing for a mythological garden landscape of the *aurea aetas*."³⁵

Although commonly on private property, these displays could have been, at least on special occasions, open to the public. In the gardens of Julius Caesar, downstream from the city on the right bank of the Tiber (in the district now called Monteverde), two years before he entertained Cleopatra there in 44 BC, Caesar, unusually, had held a grand *salutatio* (ceremonial visit) for the plebs (previous public feasts had

been held in public locations), and after his death his gardens were willed to the people of Rome. These gardens must have been well stocked with art works because Marcus Antonius is said to have taken many objects (*ornamenta*) from there and to have divided them between the gardens of Pompey and the Villa Scipionis, both of which were in his possession.³⁶

How much and how often this material was open to the public is impossible to determine. It is clear that "private" collections of sculptures sometimes were meant for semi-public display, as demonstrated by Pollio's, which was exhibited in perhaps a specially constructed "museum," for he was anxious to attract sightseers.³⁷ Even private villas at Tusculum and elsewhere could be visited to see art treasures, and Cicero pointed out that the famous statues in Heius' chapel at Messana could be seen daily.³⁸ There may have been a feeling in this period that the public had certain rights of access to works of art, and Pliny acknowledged that Agrippa even wished to nationalize all such works.³⁹ These collections, therefore, must have carried great influence over public taste, even more than so-called "State Art."

As Isager suggests, sculptural friezes, which must have constituted a large portion of "State Art," "did not belong in any of the traditional categories, for by sculpture is only understood [by Pliny as] free-standing, three-dimensional sculpture."⁴⁰ Such public collections were deemed so important that when Vespasian took the office of censor in AD 73, interrupting "normal" procedures, it might have been to ensure safekeeping of these public treasures. Among these treasures it was probably free-standing sculpture that was preeminent because, as pointed out by

Strong, the only new official to come out of the reforms of the fourth century AD was the *curator statuarum*.⁴¹

Indeed, according to Roman law *ornamenta* were protected primarily in order to ensure the preservation of State monuments but this protection also extended to the private sector. Certain works of art, therefore, were defined by law as being integral parts of the house proper. For example, *sigilla* (little figures or images) and *statuae adfixae* (attached or fixed statues or images) were considered part of the *ornamenta* of the house, such as also were statues in niches (the *inhaerent parietibus*).⁴² A practical result of such laws was that houses were sometimes purchased in order to gain the *ornamenta* that they contained.⁴³ In this way new villa owners could obtain sculptural collections for their newly formed *horti*, including even some pieces which were not always suitable for the new owner – such as certain imperial or private portraits.⁴⁴ For example, the gardens of Regulus near the Tiber were filled with statues of himself, which likely would not have been valued by a new owner.⁴⁵

After the death of a villa or town house owner it was not unusual, because of the division of inheritance, that at least some of the property was auctioned, including sculptures and other works of art not considered by law as *ornamenta*.⁴⁶ For example, a tripod table from the *atrium* of a house in Pompeii (1.6.8–9) has inscribed on its legs the name of Publius Servilius Casca Longus, a conspirator who took his life after Philippi around 42 BC. It could have ended up in this Pompeian house as a result of the auctioning of Casca's property after his death. In similar fashion, when Domitius

Tullus died his widow inherited the villa, but the collection of sculptures was auctioned; the emperor Tiberius purchased paintings as well as an Egyptian statue.⁴⁷ According to Neudecker, this may have been one way that owners of, particularly, newly created *horti* obtained the apparently vast number of sculptures necessary for their decoration.⁴⁸ Other means of collecting private sculptures could be as gifts, particularly during the Saturnalia, or through lawsuits, looting during fires, and theft.⁴⁹ Honorific statues in the vestibules of homes could sometimes be given by the citizens of grateful client-cities, as were the cases in the houses of Vulcaeus Rufinus, and of the Valerii in Rome.⁵⁰ Furthermore, Nero cast lots for paintings and, according to Pliny, L. Seius Strabo, who was praefect of Egypt, willed to Tiberius an obsidian statue of Menelaos, which Tiberius later returned to Heliopolis.⁵¹ Even emperors such as Titus and Marcus Aurelius are known to have had auctions of art works (lasting as long as two months and including robes, goblets, jewels, as well as statues and paintings) from their personal storerooms to obtain ready cash in emergencies.⁵²

Regardless of how such sculptural collections were assembled, the adornment with statues of a private garden was a personal act reflecting the character of its owner more than could any public collection, even one assembled by an individual such as Mummius or Pollio. Tastefully displayed sculptures were a necessity, reflecting the social status of their owners, and we are informed that Damasippos, who was perhaps from the prestigious Junius family, owned substantial gardens along the Tiber in the time of Cicero, and

seems to have been a specialist in designing such gardens for others.⁵³

Although one may have employed a Damasippos, a man's house and gardens, like his manner of speech, were an extension of his personality as expressed, for example, by Seneca or by Cicero's remarks on Caesar's sculptural collection, which revealed not only the taste of the dictator, but his fate.⁵⁴ Cicero himself, who revered Plato above all others, had a statue of this philosopher (probably a copy after a statue of Plato sculpted by Silanion and commissioned by the Persian Mithridates for the Mouseion of the Academy) in his gardens where his friends would gather.⁵⁵ Similarly, in the gardens of Atticus stood a portrait of Aristotle beside which he would have philosophical conversations with his friend Cicero.⁵⁶ It is likely that such statues were tied to garden settings and particularly to spots shaded by trees. Thus, Plutarch described a statue of Demosthenes as standing under a plane tree, and a portrait statue of the poet Philitas was also under a tree.⁵⁷ The setting of the Platonic philosophical discussion in Cicero's first book of *De oratore* is, in fact, beneath a plane tree, evoking Plato's *Phaedrus*, in which the protagonists sit by a stream beneath such a tree. Sculptures of poets and philosophers, regardless of their specific locations within the garden, must have served dual purposes: as reflections of the philosophical leanings of their owners, and as physical "participants" in conversations, which would take place near them. As Seneca indicated, such statues were used "to kindle enthusiasm" for these great men.⁵⁸ By bringing the image of someone in front of one's eyes, the thing itself became alive.⁵⁹ In fact, according to Cicero portraits are merely of bodies not minds, so that the orator has the power to verbally

re-sculpture them into living beings.⁶⁰ Such sculptural images therefore could be seen as more than inanimate objects; these collections became spaces "of artificial memory, or of 'creating' memory."⁶¹ Like most art works in villas, they were both private statements and public displays. But such statues of Greek philosophers in suburban settings also reflected the general pursuit of Greek culture that, at least in the late Republican period, could take place perhaps only outside the city.⁶²

It may be an over-exaggeration to claim, as does W. V. Harris, that the Romans' penchant for military campaigns, particularly in the late Republic, was in order to supply their villas with sculpture and other decorative elements.⁶³ On the one hand, Roman villas were symbolically and physically linked to conquest as a result of the enormous amount of war booty that ended up in them. According to Rouveret, Pliny the Elder's concept of a collection was an assemblage of military booty, symbolizing Roman victory and superiority, and carrying always, therefore, political and ideological messages.⁶⁴ On the other hand, the situation of being surrounded by foreign images was not only a result of Roman military might but also an expression of the superiority of Greek culture. The statement by Horace that "Greece, the captive, made captive her savage victor [Rome], and brought the arts into rustic Latium" is vividly confirmed by the decorative elements of a Roman villa, the spaces of which, according to Varro, could be given Greek names.⁶⁵ Indeed, the Roman villa garden can be regarded as a sort of compact Greek *palaestra* because it offered covered and open-air walks, the kind that Cicero and his philosophizing friends experienced in their strolls within

his "gymnasium."⁶⁶ Not only the architecture but also the garden plantings and the decorative displays, particularly sculptures, must have played significant roles in creating an ambience that was sympathetic to such cultural ties.

How statues were considered and functioned in these garden settings is not always clear. Did they form real art collections? Did a program exist in which sculptures were consciously displayed together for their content and meaning? Or, were sculptures obtained and displayed for their sheer aesthetic appreciation? We surely must take a neutral position and consider that all three possibilities could be correct given changing circumstances such as place, consumer, and viewer. According to some ancient sources, collections could be considered so intimately tied to their owners that they were thought to reflect the character and temperaments of their collectors. According to Pliny, the collection of sculptures of Asinius Pollio, previously mentioned, reflected his good taste and high social standing.⁶⁷ It is not surprising in such a critical environment that collections could backfire on their collectors, such as Eucrates, whose "masterpieces" in his garden were thought to have corresponded neither to his sense of art nor to his social standing.⁶⁸ Likewise, Martial disparaged Quintus, whose extravagant signs of wealth in the form of furniture and silver could not overcome his pathetic disposition.⁶⁹ Such negative criticism must have been directed toward the pretensions of the *nouveaux riches*, many of whom attempted to display their good taste with copies of "famous" works of art.⁷⁰

Regardless of the criticisms directed toward such pretentiousness, copies were

in great demand by a Roman clientele hungry for Greek sculptures. According to Pliny, Domitius Tullus' *horrea* (store-rooms) had "many most ancient and beautiful statues," most certainly copies after famous originals.⁷¹ These were perhaps not meant for personal consumption but were gathered for sale to an art market that must have required numerous works to fill the demand for decorative sculptures of all types. In the first century BC Gaius Verres, a wealthy and avaricious Roman aristocrat, collected large-scale sculptures, particularly those of well-known Greek artists, and he was said to have stuffed his villa in Rome with these, even though he never lived there.⁷² A Campana relief in the Louvre (Figure 13.5) shows a portico filled with statues, herms, a vessel and basin, and this may reflect the almost overabundance of such items in real villas such as those owned by Verres. It appears that, at least for the Roman with ties to the capital city, sculptural adornments, particularly in porticoes and gardens, were essential embellishments of a wealthy villa.⁷³ Such a phenomenon occurred as well in certain town houses in Pompeii and Herculaneum in imitation of villa decoration.

At the beginning of the Roman conquest of Greece early in the second century BC, actual Greek works found their way into villas initially as war booty (or in the case of Verres by illegal plunder) without any real consideration as to quality or appropriateness.⁷⁴ Soon thereafter, however, familiarity with Greek literature about art created an environment conducive to a more intellectual and sophisticated collector.⁷⁵ Art works could now be considered with respect to quality characterized by the ranking of great masters



Figure 13.5 Campana relief of portico with sculptures, terracotta, H: 34.5 cm; L: 41 cm; Musée du Louvre, inv. Cp3832.

as well as perhaps of types and materials. Yet, with the scarcity of original works of Greek art after the great conquests of the late Republic, copies were perhaps the only means of obtaining such images for personal consumption. Cicero's requests (which may be typical of his time and social class) to Atticus and others for sculptures never mention the need for "originals."⁷⁶ Instead, his concern was for subjects appropriate to specific locations within his villa. Cicero may, of course, have obtained Greek original works, but it seems not to have been a priority. Indeed, it is possible that little distinction, within a villa context, was made between original works and "copies." What mattered, perhaps, was that the image conveyed its Greek origin, not that it was actually carved by a famous Greek artist.⁷⁷

Regardless of whether a work of art was an original or copy, the correct

arrangement of sculptures was tied to the ancient Roman concept of *decor*, which, although not identical to beauty, determined beauty, and by extension the aesthetic enjoyment (and social function) of such sculptural collections.⁷⁸ Beauty, for Aristotle and Cicero, meant order (usually on a cosmic scale), organic unity or identity, and the fulfillment of a specific function.⁷⁹ According to Vitruvius *decor* meant suitability of style, place, purpose, or tradition, so that statues of politicians in the gymnasium and athletes in the assembly were considered inappropriate.⁸⁰ The proper assemblage of collections, therefore, was crucial to accommodate such aesthetic and cultural values.

Similarity and contrast in subjects, typologies, materials, etc. were important considerations in how a sculptural collection was to be displayed. These principles were applied even to such items as dining

couches, for, according to Varro, *triclinia* of matching height, material, shape, and even fabric could be placed together or else could be assembled by deliberately contrasting materials such as ivory inlaid with tortoiseshell. Even the display of silver vessels on a sideboard could be arranged in matching pairs or in pleasingly contrasting shapes.⁸¹ Such interior displays could hint at sculptural assemblages within garden settings, although the possibilities in such natural environments may have been less restrictive.⁸²

The desire to own sculptures and to set them up within personal spaces must have been considered appropriate for the wealthy Roman wishing to show his "good taste" through such displays. Yet, Cicero claimed his book collection was his most important, and confessed that of all the types of art he would most collect, paintings took priority.⁸³ Cicero did have a famous collection of paintings worthy of praise by Pliny, but we do not hear similar remarks about his sculpture collection.⁸⁴ Greek paintings must have been rare objects indeed, so that ownership of them confirmed a social and economic position that sculptures could never have reached.

Even the very act of collecting was traced back by Juvenal to the Greeks of the classical age.⁸⁵ However erroneous these remarks, they must have fallen on the receptive ears of those who considered themselves true followers of Greek tradition. Private sculptural displays were not influenced by the classical Greek world, but by the world of Hellenistic wealth, power, and kingship. For example, according to Athenaeus, King Ptolemy had placed a hundred marble statues beside or near columns of a temporary pavilion built for a festival in Alexandria.⁸⁶ Thus,

the placement of sculptures with respect to columns of the peristyle garden of a Roman house or villa must have taken its lead, consciously or not, from such Hellenistic displays. Under these circumstances it is not surprising that Roman domestic spaces could be described in Greek terms, even though the architectural plans, forms, and materials of these villas and houses were substantially Roman.⁸⁷

Perhaps one of the best examples of a Roman villa containing numerous sculptures, many of which are clearly echoes of Greek originals, is that of the Villa of the Papyri near Herculaneum (Figure 13.6), which has been reconceived at the Getty Villa in Malibu, California (Figure 13.7). Portrait busts, small bronzes, and large-scale sculptures in the round occupied the porticoes, gardens, *tablinum*, and *atrium* of this villa, and it is tempting to see these as having been selected and positioned to express the desires of the collector. That is, similar subjects may be related to specific works to form a complete and coherent program. Yet, scholars are not in agreement as to what may or may not be expressed by this collection. According to Pandermalis it displayed the dichotomy between public and private, while Sauron proposed the evocation of Elysian imagery.⁸⁸ Wojcik considered aristocratic associations as dominant features, while Warden and Romano argue for a careful didactic arrangement for the expression of virtue.⁸⁹ Some of these theories rely on the association of works according to subjects even though they were set up at considerable distances from each other, compelling ancient viewers to relate sculptures that may not have been clearly seen at the same time. Thus, according to Neudecker, it is better to look at the

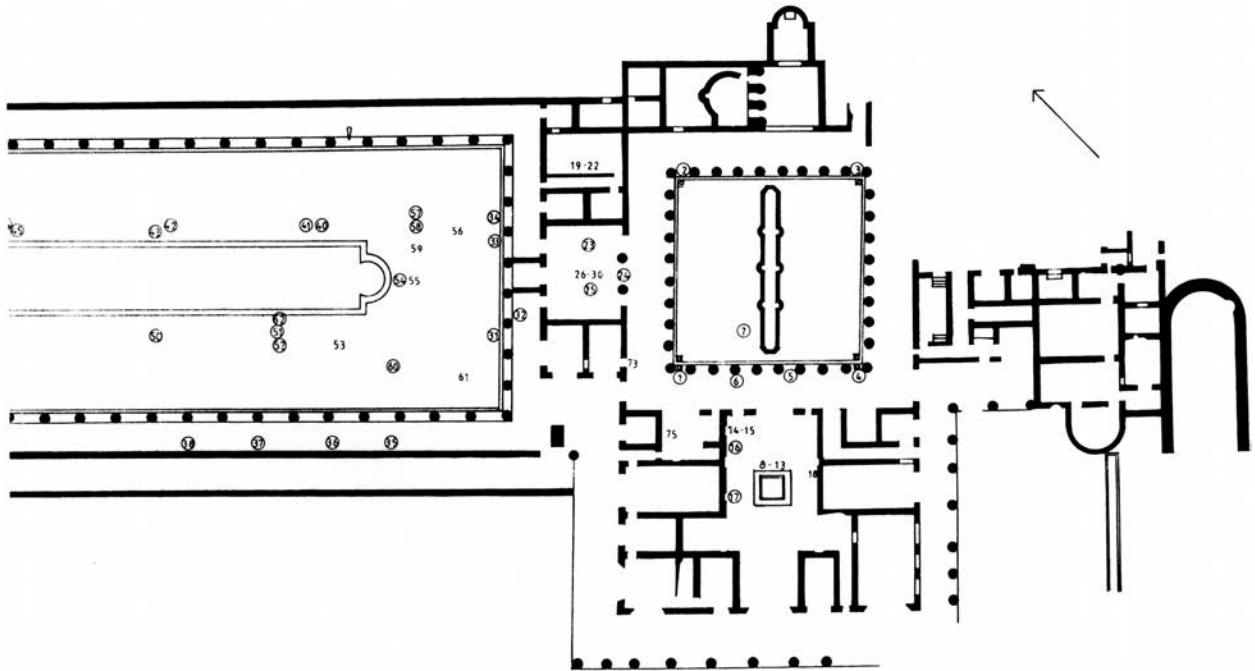


Figure 13.6 Villa dei Papiri near Herculaneum, partial plan, Neudecker 1998, p. 81, fig. 7.3, adapted from Comparetti and De Petra 1883.



Figure 13.7 Peristyle, Getty Villa and Museum, Malibu, California.

various *loci* rather than the entire group as a meaningful ensemble, in similar fashion to Quintilian's uses of *loci* – passing through rooms and near sculptures – as

a comparison to mnemotechnics (techniques to aid the memory).⁹⁰ Indeed, according to Bek, the viewer was always the focus of the composition in antiquity,



Figure 13.8 Pool and sculpture, Villa of Poppaea at Oplontis, reconstruction.

so that visually compact groupings must have played the most important role in laying out the sculptures in a Roman garden.⁹¹ A case in point may be in the Villa of Poppaea at Oplontis, where a row of statues set up in front of trees was aligned at a slight angle from the edge of the nearby *piscina* in order to allow them, perhaps, better visibility from the principal rooms at the north (Figure 13.8).⁹² Similarly, in the House of the Menander in Pompeii the spacing of the columns was widened to make the peristyle garden more visible from three different locations (the *tablinum*; a small room at the east; and the *grand salon*, one of the largest private rooms in Pompeii).⁹³

In the peristyle and garden of the Villa of the Papyri were statues of athletes, poets,

and thinkers (Figure 13.9), Dionysiac and bucolic figures (Figure 13.10), and animals (Figure 13.11). Multiplicity and variation were perhaps the desired effect. One was not meant to dwell on any single image, but instead was to contemplate these sculptures from a distance as a collective. The peristyle garden may have been a place where most sculptures were displayed, but the very fact of the multiplicity of images in a large, primarily outdoor setting must have challenged any visitor to make sense of it all (witnessed by the different modern interpretations of the collection at the Villa of the Papyri), if indeed the arrangements were created for such a task. It has been suggested that eclectic private collections of sculptures were desirable (particularly in the early



Figure 13.9 Bearded man with curly hair, Villa dei Papiri, originally mounted on a marble herm-post, bronze, Museo Nazionale di Napoli, NM 5623.

Empire) because they reflected, in general, public displays of plunder, conveying not only wealth but also power, status, and tradition.⁹⁴ Statues that were within more confined boundaries and that were displayed alone or with only a few others held greater opportunities for specific contemplation and discussion.

Four of the five bronze “dancers” from the Villa of the Papyri were found, regularly spaced, near the rear wall inside the south portico (Figure 13.12). Their similarities in material, size, costume, and gestures speak for these as a coherent



Figure 13.10 Life-size sleeping satyr (on modern rock), Villa dei Papiri, bronze, Museo Nazionale di Napoli, NM 5624.

grouping, perhaps representing the Danaïdae.⁹⁵ If this subject is indeed correctly identified, they could have recalled the porticoes of the Sanctuary of Apollo on the Palatine, or, in a more general sense, the statues similarly displayed in the *stoai* of sanctuaries in Sicily, Knidos, Delphi, or Samos, or even in the Augustan forum in Rome. The educated viewer, therefore, may have been prompted into comparing such private displays of sculptures to public collections, suggesting “a symbolic art collection and a privatization of the famous public museums.”⁹⁶

According to Plutarch one should compare the lives of two personalities just the same way as one would compare two



Figure 13.11 Two deer, Villa dei Papiri, bronze, Museo Nazionale di Napoli, NM 4886, 4888.



Figure 13.12 Five life-size *peplophoroi*, Villa dei Papiri, bronze, Museo Nazionale di Napoli, NM 5620, 5621, 5605, 5604, 5619, adapted from DAI, Rome. Ist. Neg. 83.2142.

works of art.⁹⁷ Thus, works of art that stood next to or near each other could have been consciously arranged in order to make such comparisons in perhaps the qualities of identifiable styles or of artists who had created them, even if such

sculptures were acknowledged as copies. In a more general way, Dionysian or Bacchic subjects, either singly or collectively, could have evoked concepts of happiness which were dream-like or, at least, consciously unreal, accounting for their

popularity in domestic decoration.⁹⁸ On the one hand, sculptures set up in domestic gardens could have been viewed as simply pleasing images that enhanced the setting, lending perhaps an air of sophistication, grandeur, or mystery. On the other hand, individual displays and groupings of sculptures could have been studied more closely, summoning up conversations about art, philosophy, or even politics. In fact, Bounia claims that “(w)hen Cicero [and for that matter any other Roman patron] decided to decorate his villa, his sense of beauty, his belief in the evocative power of objects, and his ideas about how memory works together determined the collection of sculptures.”⁹⁹

Such sculptural collections appear to have been a phenomenon tied to Rome and its immediate surroundings. Most garden sculptures that can qualify as important works of artistic production have been discovered near the capital city. Other collections uncovered at distances from Latium (and Campania)

likely were created in order to emulate villa and garden displays in and around Rome. For example, sculptures from the villa at Desenzano del Garda (northern Italy) included at least eight statues, the subjects of which (Hercules, Dionysiac themes, Cupids, Fortune) were typical of garden peristyle displays (Figure 13.13). Likewise, the villa of Herodes Atticus at Eua in Greece, discussed at the beginning of this essay, had statues depicting heroic and Dionysiac subjects, all of which could have been found in villas near Rome. It also included a portrait of Herodes himself as well as at least thirteen Imperial portraits dating from Hadrian (AD 117–38) to Trajan Decius (AD 249–51).¹⁰⁰ Indeed, Herodes and his inheritors as well as the owners of the villa at Desenzano must have been well connected to the capital city, so that their surroundings, in the form of sculptural displays, consciously expressed these ties. The additions of a peristyle in each of these also related them to similarly designed villas near Rome,



Figure 13.13 Sculptures in the Antiquarium of the villa at Desenzano del Garda (northern Italy), adapted from <https://www.expedia.com.sg/Villa-Romana-Desenzano-Del-Garda.d6076900.Place-To-Visit>

and must have demanded sculptural decoration to complete the desired ambience. Villas without peristyles, such as the corridor type in Pannonia, may have contained sculptures, but never in such numbers or quality as Roman peristyle villas. These villa owners appear not to have desired or needed elaborate sculptural displays to the extent of owners near Rome, or those, such as Herodes Atticus, who were so closely linked to the capital.

Thus, sculptural collections in villas, when discovered outside Italy, could be markers of the owner's close ties to Rome or at least of a desire to imitate the concept of a "true" Roman villa. The absence of sculptures in the context of the villa garden need not indicate a lack of wealth but rather a different conception of the necessity of such displays in creating an acceptable personal environment. For example, in the courtyard garden at Fishbourne (West Sussex) – one of the few examples of a "palace" outside of Italy – a single statue (no longer preserved) likely stood on a base set in front of a staircase and at the end of a central path delineated by topiary hedges.¹⁰¹ Even in and around Rome the need for decorative sculptures, particularly those in the round and "copied" from Greek originals, appears to have diminished during the third and fourth centuries. If the archaeological record is diagnostic, then most personal sculptural displays appear to have been established by the second century AD.

Thereafter, fewer sculptures in the form of original works or copies have been recorded, and when they do appear, they are usually of poorer quality than any that came before. Again, the villa at Desenzano del Garda may be a case in point. It continued to be occupied up to

at least the fourth century, perhaps at that time owned by a wealthy relative of Magnentius, who shared power as Caesar from AD 350 to 353. Yet, all the sculptures are dated to the second century (save for a small head of Apollo dating to the fourth century, which is the only piece found outside the peristyle-*viridarium* areas of the villa) and were presumably still in use by the final owners.¹⁰² It was not likely lack of money that accounts for the continued use of old sculptures at Desenzano, but a different attitude toward the necessity of creating a new sculptural collection, or even the desire to add to the old group of sculptures.

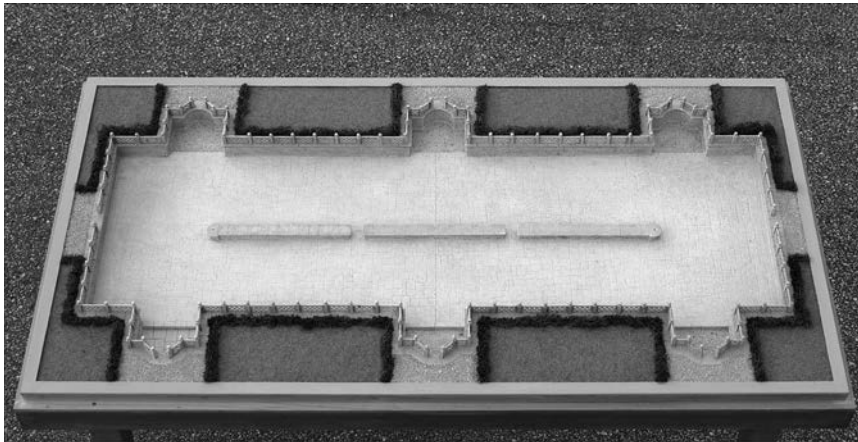
The sixty-eight herms recovered from a villa at Welschbillig were, therefore, an unusual (at least according to the archaeological remains) collection of fourth-century sculptures created especially for a garden setting during the reign of Gratian (AD 367–83), although the villa likely dates slightly earlier (Figures 13.14A, 13.14B, 13.15A, 13.15B). These herms (perhaps as many as one hundred in total) were set up as upright posts of a decorative fence surrounding a rectangular pool, the northern section of which may have been flanked by wings of the villa. An enormous *nymphaeum* could have stood at the opposite southern end. Thus, the pool and its herms (as well as the *nymphaeum*) were the focal points within the immediate landscape of the villa.¹⁰³

The Welschbillig herms represent a wide variety of figures including Germanic, African, and Asiatic types, illustrious men, philosophers, and idealized portraits, as well as single images of Venus, Mars, and Hercules. Wrede argues that this wide variety of types represented the emperor Gratian's cultural heritage of the



A

Figure 13.14A Welschbillig, excavation of herms in 1907, ©Rheinisches Landesmuseum Trier.



B

Figure 13.14B Villa at Welschbillig, model, ©Rheinisches Landesmuseum Trier.

“ancient world,” and expressed his educational ideal.¹⁰⁴ According to their recorded places of discovery, the excavators determined not only the location of each herm, but also that they all faced toward the pool. The reflections on the water’s surface must have been of greater importance than the desire to view each herm at close range. Ausonius, the Bordelais rhetor and poet who was tutor and advisor

to the emperor Gratian at Trier, admired such mirror-like images.¹⁰⁵ He understood that objects under water could be illusory, such as pebbles that appeared to be precious stones when viewed through the surface, and in his poem *Mosella* he describes scenery reflected in the Moselle River, and the enjoyment of people intrigued by their own images in the water. Even more pertinent for our discussion of statues is



A

Figure 13.15A Herm figures, villa at Welschbillig, ©Rheinisches Landesmuseum Trier.

Callistratus (writing around the fourth century AD), who describes a statue of Narcissus beside a spring of clear water, which struggled to reproduce “in an incorporeal medium the likeness of a corporeal model and enveloping the reflection which came from the statue with the substance of water as though it were the substance of flesh.” Indeed, “the form in the water itself was so instinct with life and breath that it seemed to be Narcissus himself.” Although the static marble statue in its three-dimensional corporeality was remarkably life-like, only its rippling two-dimensional reflection on the surface of water could breathe life into it. But, the true “reflection” giving life to the statue of Narcissus is that in the reader’s mind conjured by Callistratus’ description of it. Thus, statues reflected in water are given life, not in the water itself, which



B

Figure 13.15B Herm figures, villa at Welschbillig, ©Rheinisches Landesmuseum Trier.

is only an illusion, but in the minds of the viewers. It is not surprising, given these recognized and beloved qualities of water, that pools played such a large part in gardens. They were not only useful for the watering of plants and for their cooling properties during hot summers, but they also contributed, through their reflective surfaces, to the magical, whimsical, and otherworldly ambience that most ancient gardens were expected to achieve.¹⁰⁶

It is likely that the Welschbillig herms, given their positions and numbers, were to be admired as reflections on the water’s surface, and collectively rather than individually. The sheer extravagance of so many sculptures in one place, regardless of the mediocre quality of carving, must have lent great prestige to the owner(s) of this villa, particularly considering its location and period. Germany, in general, has not yielded other large numbers of sculptures in villa settings and the fourth century seems not to have been a time for the carving of such elaborate decorative programs.

Hermes may have been the most ubiquitous kind of sculptures found in garden settings because they could evoke a sense of repose and rest, or they could be thought of as protectors of the garden.¹⁰⁷ A survey by Linda Farrar of twenty gardens located in the Vesuvian region as well as in Latium (therefore excluding the villa at Welschbillig) indicates that herms were three times as frequent than the next most numerous two types: animals and oscilla.¹⁰⁸ Children, satyrs, and Muses follow in descending order, with Silenus, Cupids, and various deities the most infrequent. Although limited in scope, this survey may well reflect the types of sculptures considered most appropriate for Roman gardens regardless of their geographical locations. Not included are divinities uniquely Roman, such as Priapus, Silvanus, and Pomona. In spite of their absence from Farrar's list, they occasionally were present in homes (and gardens?), as attested by a bronze statuette of Pomona found in the House of the Ephebe (Figure 13.16), and a marble Priapus used as a fountain in the House of the Vettii (now displayed in a *cubiculum* near the kitchen: Figure 13.17).¹⁰⁹ Likewise, a statuette of Priapus was found in the Alameda villa in Spain.¹¹⁰ Surprisingly, such images appear not to have been numerous in any Roman garden setting, and indeed, according to the archaeological remains, were extremely rare.

Typical perhaps was the peristyle garden of the House of the Golden Cupids at Pompeii, in which were discovered numerous sculptures including nine herms, three animals (rabbit, dog, and boar), four pinakes, and seven oscilla (Figures 13.18; 13.19). Only one statuette (that of Omphale) was found, although



Figure 13.16 Statuette of Pomona, House of the Ephebe, 1.7.10, Pompeii, bronze, Jashemski 1979, fig. 147.

two bases could have carried other small statues in marble. The precise placement of all the sculptures is not assured; however, their present arrangement (accomplished in 1904) around a central basin following the long axis of the garden is likely correct in its general layout.¹¹¹ Narrow paths bordered by planting beds complete the space; however, the width of these paths is not assured. As reconstructed, there is not enough room for two to walk side by side.



Figure 13.17 Priapus, House of the Vettii, vi.15.1, Pompeii, marble, Jashemski 1993, fig. 177.

In its final phase the peristyle was likely enclosed by wooden barriers, effectively separating the visitor from direct contact with the garden.¹¹² Thus, it is possible that the garden paths were not meant to stroll upon but to admire from a distance.

Although not completely symmetrical, the total impression is of an effort to have the sculptures evenly spaced and occupying the entire area enclosed by the colonnades. Furthermore, some sculptures face into the garden so that the arrangement may have been for the visitor entering into

the peristyle from the main quarters of the house. Finally, the majority of the sculptures (herms and pinakes) were raised on pillars, putting them at eye level and above the garden plantings as well as above any barrier between the columns. A garden painting from the House of the Golden Bracelet (or Alexander [vi.17.42]) shows such an arrangement with herms and pinakes positioned together behind a screened fence and in front of dense plantings (Figure 13.20). Although perhaps fantastical (for example, the plantings are superabundant and the bronze-colored herm heads appear almost lifelike), this painting must represent the elements of a real garden.

The other sculptures from the House of the Golden Cupids (Omphale and animals) were placed on or near the ground in positions that one would expect for such subjects. The plantings arranged in symmetrical geometric patterns defined the horizontal plane of the courtyard, while the sculptures, particularly those raised on pillars, determined a vertical plane in direct relationship to the columns of the peristyle. The garden with its sculptural arrangements was bounded by colonnades and, as a result, augmented the repetitiveness of the architectural elements and their horizontal (columns) and vertical (architraves) forms. It has been suggested for later Roman villa gardens of the eighteenth and nineteenth centuries that plants typical of the Italian landscape – boxwood, juniper, laurel, holms oak, elms, and umbrella pines – “were well-suited to the needs of symmetry and the widespread use of sculptural decoration,” and this may well have been the case with ancient gardens.¹¹³ In other words, the natural shapes of indigenous plants may have been as much a catalyst

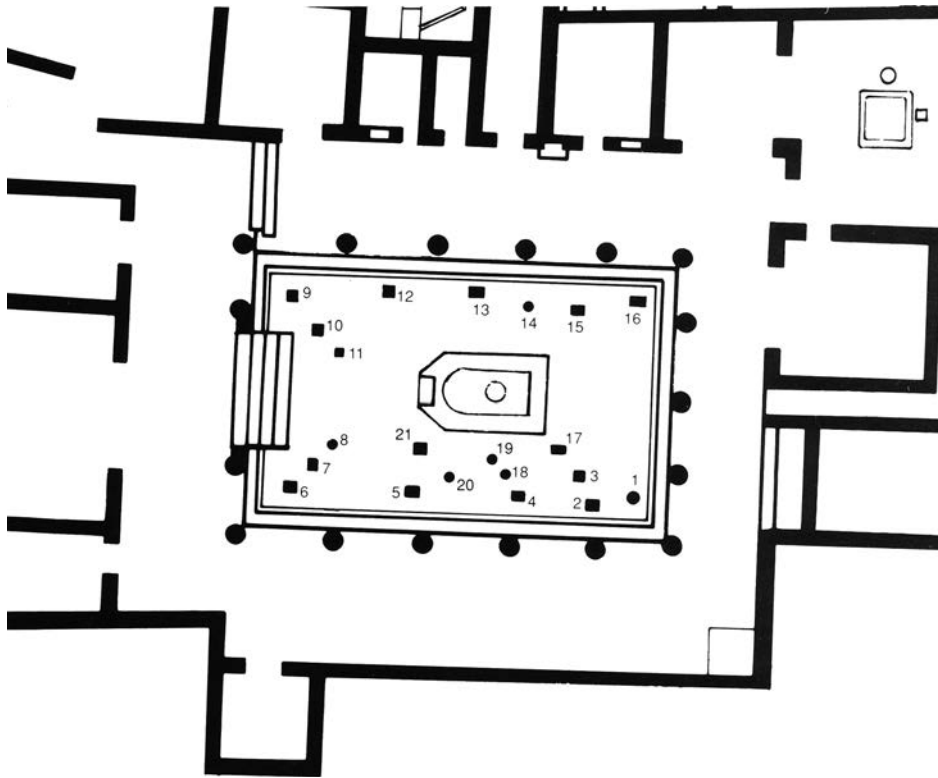


Figure 13.18 Peristyle garden, House of the Golden Cupids, vi.16.7, Pompeii, plan, after Jashemski 1993, Plan 54. Numbers indicate original location of the sculptures.



Figure 13.19 Peristyle garden, House of the Golden Cupids, vi.16.7, Pompeii, after Jashemski 1993, Figure 182.

as architectural elements for the designs of Roman gardens and for the desire to position sculptures within such symmetrical environments.

In the modest Pompeian garden of the House of Marcus Lucretius sixteen sculptures were placed in front of a stepped *nymphaeum* and around a



Figure 13.20 House of the Golden Bracelet, v1.17.42, Pompeii, fresco now located in the Museo Archeologico Nazionale, Naples.



Figure 13.21 Garden in the House of Marcus Lucretius Fronto, v.4.a, Pompeii (old arrangement of sculptures).



Figure 13.22 Garden in the House of Marcus Lucretius Fronto, v.4.a, Pompeii.

circular pool (Figure 13.21).¹¹⁴ These statues included satyrs, animals, and four Janiform herms that must have been sensitively positioned for pleasing views along the main axis of the garden and *nymphaeum* (Figure 13.22). It is clear that these sculptures were not merely bric-à-brac but had been set up in order to enhance the view of the *nymphaeum*. In particular, two herms are widely spaced near the front and two others flank the narrow stepped *nymphaeum* at the back of the garden. Thus, these four pillars hint at an almost one-point perspective converging on a statue of Silenus in a niche above the *nymphaeum*. The result, a visual enlargement of the small rectangular space and the aggrandizement of the modest fountain, would not have

been the same without this sculptural arrangement.

Living and active plantings growing around inanimate and static marble sculptures and pillars were a deliberate contrast in forms that must have enhanced the nature of each. In other words, the architectural surround, the plantings, and the sculptural decorations worked in tandem – a priority for any owner (wealthy or of modest means) wishing to employ even a single statue within an outdoor setting. We will never know for sure what individual collectors of garden sculptures had in mind, but we can be certain that the display of sculptures in private gardens held a fascination and priority for many Romans that transcended mere decoration.

Part III

MAKING THE GARDEN

Chapter 14

CONSTRUCTING THE ANCIENT ROMAN GARDEN

Kathryn L. Gleason and Michele A. Palmer

INTRODUCTION

The gardens built in Rome and the provinces have been found archaeologically at all scales, from small shop gardens, fashionable *viridia* in the peristyles of urban houses, and commercial vineyards with shady *triclinia*, to vast, opulent *ambulationes* (promenades), of temples, theaters, and estates of the wealthy. This essay examines public parks and elite pleasure gardens to explore the process of design and construction necessary to account for the evidence we find archaeologically of these larger designed landscapes. Wilhelmina Jashemski's essay in this volume, "Gardening Practices and Techniques," addresses the creation and cultivation of smaller gardens.

By definition, all Mediterranean gardens were, in some respect, built before they were planted – the enclosures defined, terraces built, soils imported and amended, and irrigation water brought to the site. To accomplish these and many other acts of garden making, the site needed to be designed and planned in advance of construction as larger projects were significant financial investments on the part of the owner. The constructed aspect of gardens tends to be quite well preserved in the archaeological record, unlike the vegetation, which is currently difficult to identify from remains in the field.

The process of garden construction in the ancient world is not well understood but exciting work lies ahead in relating texts and inscriptions to the emerging archaeological evidence, especially for elite gardens mentioned in the poetry, letters,

histories, and inscriptions of Imperial Rome. In this chapter, the authors, both trained as landscape architects, set forth an acknowledged speculative sequence of construction in order to prompt closer examination of the texts and to guide

Figure 14.1B Hypothetical peristyle, completed, SketchUp model.

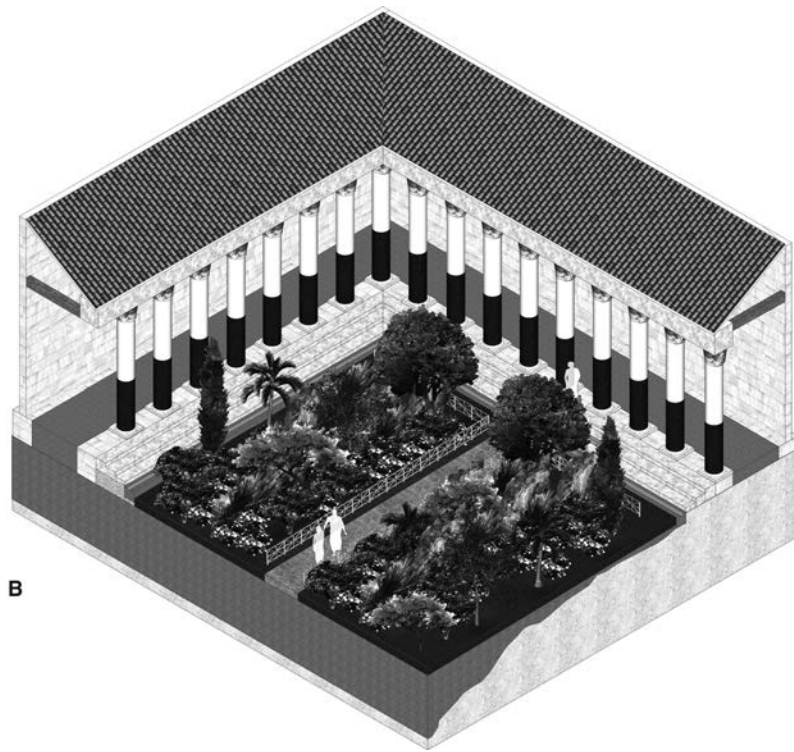
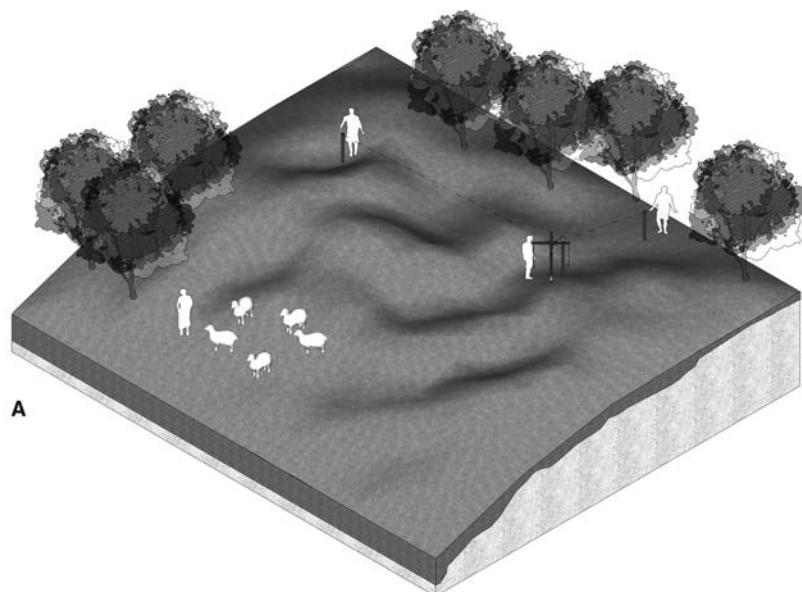


Figure 14.1A Hypothetical peristyle, initial surveying, SketchUp model.



our interpretation of the archaeological record.¹ These stages are drawn from contemporary practice but modified to account for the archaeological evidence we have observed throughout the Mediterranean. Palmer has created a virtual model of a hypothetical garden, which we pair with archaeological examples, to explore the construction processes from site selection and design to completion (Figures 14.1A; 14.1B). This 12-by-14-meter segment of a larger garden allows the reader to relate the processes of construction, as seen from large archaeological trenches, to human scale. Keep in mind that these drawings represent only a small portion of an imaginary large public garden comparable perhaps to that of the Temple of the Divine Claudius in Rome – the shaded

area illustrates the approximate size of our hypothetical example (Figure 14.2).

Private and public gardens were highly constructed spaces, projecting on platforms from the hilltops of Rome and her empire's cities, cascading down urban slopes, or perching on podiums over the Mediterranean coast.² Others were embedded within the urban fabric of *insulae*. Monumental gardens are the stages for many kinds of social and political activity, but this essay focuses on the material nature of the stage itself: leveled, well-built ground surfaces for strolling, displays of water and vegetation, the outdoor architecture for seating and dining, and the views choreographed for all of these features. As O'Sullivan has recently evoked vividly, gardens provided a specialized landscape within which men and women of status and

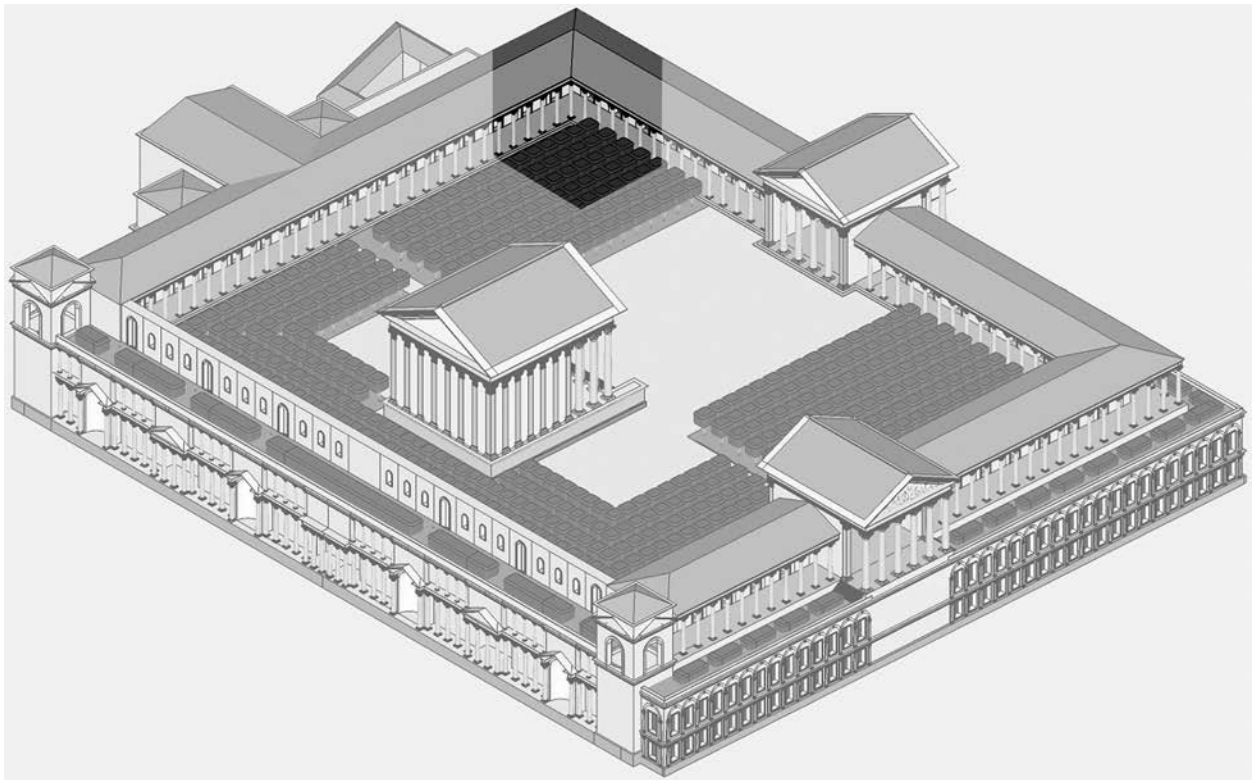


Figure 14.2 Temple of the Divine Claudius, SketchUp model.

leisure might stroll comfortably in their carefully wrapped togas and fine clothes, with the kind of bearing and gait that expressed their *Romanitas*, or identity as Roman citizens and aristocracy.³ Cultured discourse was prompted by choreographed views, collections of plants, water features, and an abundance of art.⁴ For this kind of display, leveled terraces were clearly preferred for creating finely built and well-drained walks as well as for the ease of calculating water flow for plumbed fountains and irrigation systems.⁵ Recent excavations at the Villa of Livia at Prima Porta, the Templum Pacis, the Temple of Elagabalus, the Petra Garden and Pool complex, and the Great Peristyle of the Villa Arianna at Stabia have all added immeasurably to our understanding of both the experience and the corresponding design and construction of these distinctive gardens.⁶

DESIGNING THE GARDEN

Gardens are rarely built by a single person, so ideas need to be communicated, materials estimated for ordering, and agreements about labor and scheduling reached. Engineered gardens, in particular, required planning and calculation for the construction of terraces with leveled surfaces, well-plumbed fountains, and provision of water, pavilions, colonnades, and other architectural structures. Carefully planned designs would have been required to carry out the kind of innovative garden constructions seen in the archaeological record, particularly after the first century BC, when *ars topiaria*, *viridiaria*, and other forms of luxury gardening make their appearance in Rome.

The process of making a design is a visual, graphic one. Whether drawn with a stick in the dirt for a small garden, or measured out on papyrus or parchment for the architect and estimators, or etched on a stone tablet on the building site, the design had to be envisioned, refined, and communicated. Plans, drawings, and models serve non-literate or non-bilingual clients, contractors, and builders. For complex projects, much of the organization would take place away from the site, so a common, perhaps legal, document was needed to be sure everyone was working to the same end and within budget. A designer uses plans, sections, sketches, and models to work out his or her own vision and to continuously adjust ideas to conditions of the site and available materials.⁷ Few if any designers keep in their head all of the spatial and ecological variables, particularly those required in the most ambitious Roman gardens.⁸ As we hope to show, the archaeological evidence, at least for large projects, supports the idea that garden designers in antiquity must have employed, at minimum, preliminary plans and drawings before construction began.

Geometry as a Roman Design Paradigm

As is evident throughout this book, the kinds of designs that were popular in Roman times are more varied than we see in modern reconstructions of simple quadripartite beds.⁹ There are many applications of geometry, however, and a preliminary survey of the evidence to date clearly shows that geometry underlies many designs, as it does in all of the

other arts during the Roman period. The land surveyor Agennius Urbicus, probably writing in the fourth century AD, declared that “of all the distinguished arts, which are practiced in conformity with nature, or are arranged in imitation of nature, geometry has as its substance the art of reasoning ... it is understood that geometry is in all arts, or that all arts arise from geometry.”¹⁰

Geometry served dual functions of ensuring beauty through harmonious proportions, such as the Golden Mean, and of transferring a design from a drawing to a surface.¹¹ Such preliminary designs sometimes are revealed as incised lines and geometric forms under mosaics and paintings, or on the surfaces of sculpture and architecture (Figure 14.3). Evidence of preliminary designs for gardens is, of course, less direct than the other arts because the original marks of the surveyor’s lines are no longer extant. Yet, the planting beds and other surface features of the larger or more complex Roman gardens likely followed closely the original geometric patterns that were laid out by the designer. Examples of garden designs inscribed in stone (albeit post construction) are on an early third-century marble plan of Rome, featuring several large garden complexes.¹² Surprisingly, none of these designs reveals a quadripartite ground plan – a layout for gardens thought since the Renaissance to be ancient but actually nearly absent in the archaeological record.¹³

Recent attention has turned to linking gardens mentioned in ancient literature with actual garden designs. The grandest of these are the hippodrome gardens described by Pliny the Younger¹⁴ and seen in the Domus Augustana on the Palatine that may have been for movement on foot,

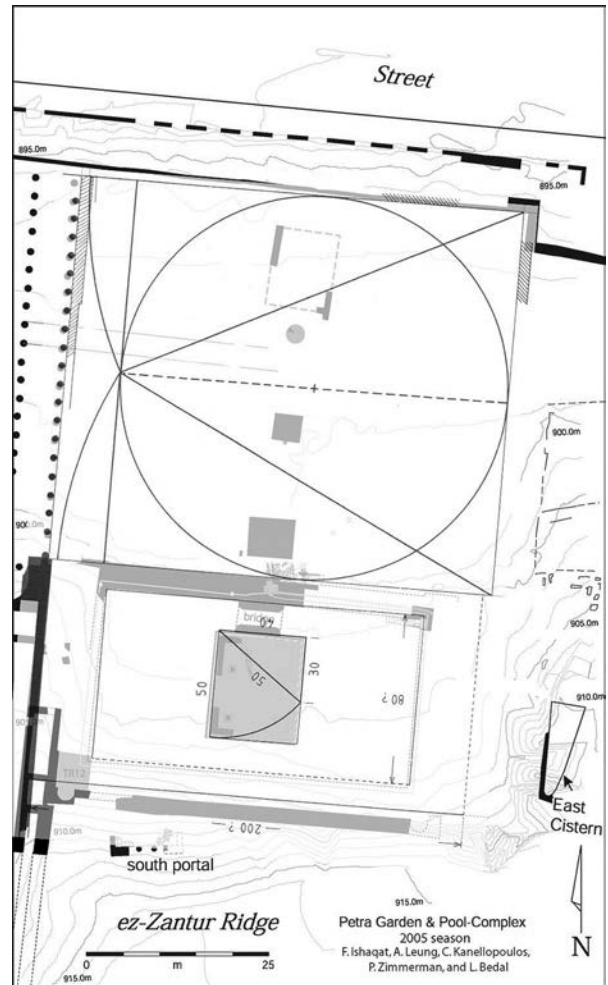


Figure 14.3 Petra garden, geometric underlay, drawing.

in a litter, or on horseback, reflecting their origins in hippodromes with gardens in the spina, which seem to suggest a sporting or competitive character.¹⁵

Peristyles, architectural arrangements of porticoes (colonnades) permitting a continuous stroll around three or four sides of a courtyard, are found in a range of sizes from those of small urban houses to monumental temple precincts. In more limited urban or architectural settings, the peristyle looked into a central *viridarium*, lending strollers changing views of artworks and plantings as they moved around the peristyle. The beds of these

interior gardens are often laid out along a main axis, often a path, with various cross axes that are visual, but not actually constructed. The House of the Chaste Lovers¹⁶ is a finely preserved and recreated example among many in Pompeii. The largest forms of gardens offered views from enclosing porticoes, but also featured long

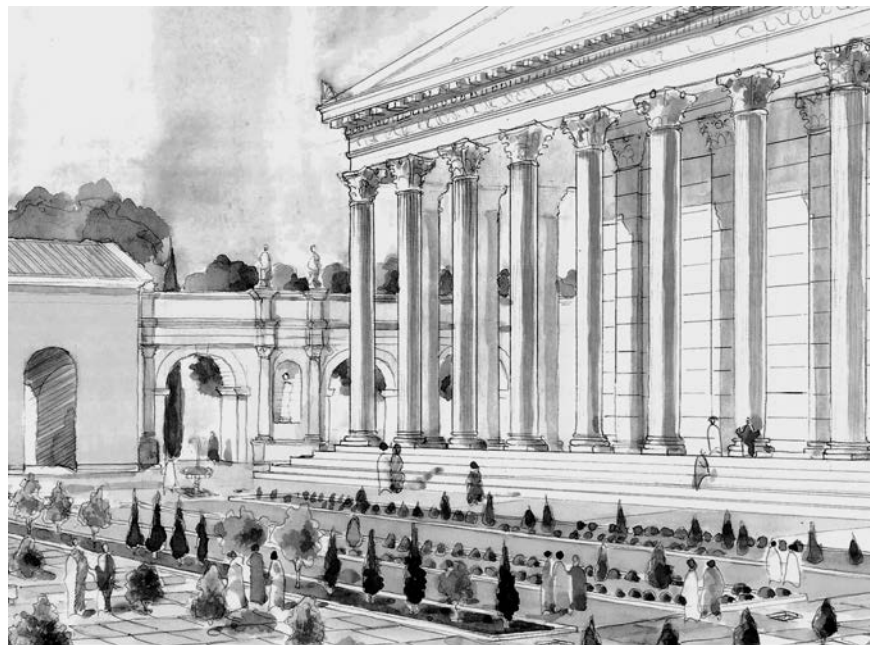
interior walks (*ambulationes*) for leisured strolling in the open air. The linear nature of these promenades, first discussed by Grimal from evidence on the Severan marble plan of Rome,¹⁷ is confirmed by archaeological evidence emerging in recent years, for example: in Rome – at the Templum Pacis,¹⁸ Prima Porta,¹⁹ and the

Figure 14.4A Strolling in the shade of matched plane trees at the Porticus of Pompey, perspective drawing.



A

Figure 14.4B Admiring the plant collections of the Temple of Elagabalus, water-color painting.



B

Palatine;²⁰ and in the Bay of Naples – at the Villa Arianna at Stabiae,²¹ and the Villa of Poppaea at Oplontis.²² A fine example elsewhere in the provinces may be seen in the Sunken Garden within the Winter Palace of Herod the Great at Jericho.²³ In these examples the archaeological evidence suggests that geometry was used to create a series of parallel walks, beds, and pools rather than to create the kind of idealized geometric compartments of Renaissance Italian gardens, such as the Villa D'Este in Tivoli or the Villa Lante at Bagnaia.

Combining all forms of evidence, we are beginning to understand changes in taste within specific types of gardens (Figures 14.4A; 14.4B). For example, it appears that late Hellenistic/late Republican plantings for *ambulationes* consisted of shade trees of the same species. For example, in the Porticus of Pompey, the extravagance of hundreds of plane trees of the same age and size must have impressed the populace,²⁴ at least until plant nurseries to provide for such allées were well established. By the mid first century AD, we see a preference for *ambulationes* lined with diverse and exotic plant displays from around the empire, as well as extraordinary methods of propagating and training familiar species.²⁵ The temple of Elagabalus on the Palatine featured a variety of plants, kept at a very low height, judging from the array of different planting pots (*ollae perforatae*) and reused *amphorae*.²⁶ This interpretation appears likely in light of recent excavations at the Villa Arianna at Stabia, where root cavities indicate a wide variety of tree and shrub species in various forms along the *ambulationes*.

New archaeological evidence suggests that at least one trend in the design of

garden beds of the first century BC and early first century AD focused on verdant assemblages, as seen in garden paintings. Such displays, at least in the Mediterranean countries, reflected access to large quantities of water, thanks primarily to the Roman expertise of aqueduct construction. Pools and other water displays were, of course, features in these gardens as well. By the first century AD, a more architectural form of garden design is popular, with abundant masonry defining areas of planting, water display, and dining, as seen at the Domus Augustana in Rome or the peristyle gardens of Conimbriga, creating an integration of water and plantings.

The Designer

Scholars have recently looked carefully at the arrival of the *topiarius* in Rome, and we are in the exciting process of matching the archaeological evidence on the ground with the meager references to this kind of garden designer and his scope of work. The emerging evidence is pointing toward the *topiarius* as one of the designers in large public and private gardens (*viridaria*, *silvae*, *ambulationes*) beginning in the first century BC. Landgren looked at some twenty-three uses of *topiarius*, *topiaria*, *topiarium*, *opus topiarium*, *herba topiaria*, *frutex topiaria* in literary sources dating from the first century BC to the fourth century AD²⁷ as well as twenty-eight inscriptions, largely from epitaphs. She concluded that the *topiarius* was not synonymous with gardener but is a more specialized craftsman, who appears in conjunction with the arrival of the *viridarium*. Clearly the latter is not simply “greenery” but a kind

of ornamental gardening. The *topiarius* is a designer/craftsman, a specialized gardener whose skill set includes the knowledge of laying out gardens with appropriate soils, drainage, irrigation, and conditions necessary for the survival of the plants, as well as the horticultural expertise to prune and shape plants into the desired forms of the genre, without necessarily being the laborer who maintains them.²⁸ By the first century AD, *topiarii* are attested mainly in Rome, but also in Gaul and Germania. Approximately half of those mentioned on epitaphs were slaves or freedmen of the imperial family or other members of the aristocracy, while the status of the others is unclear. As their Greek names suggest, many *topiarii* may have originally been from the Hellenized areas of the empire with strong garden traditions. *Viridiarum* are mentioned by Vitruvius and others, and also in building inscriptions in Africa. Landgren has concluded that the arrival of the term *topiarius* in the first century BC “seems to testify to a professional specialization.”²⁹ Many designers today continue on retainer on estates, universities, and national parks, often making decisions on site. This appears to be the case with the *topiarius*, who was involved in the design of gardens from the outset, but also was recorded on the staff of the imperial family and aristocracy.

Interdisciplinary collaboration, as we would call it today, was necessary for the creation and maintenance of designed landscapes within elite architectural complexes. Cicero, for example, indicates that his architect had the job of coordinating views from windows onto the work of his *topiarius*, and the interplay of architecture, view, and landscape receives the same emphasis in the letters of Pliny the

Younger.³⁰ The *topiarius*, presumably, was engaged in a dialogue on this matter. Netzer postulates that Herod was sent teams of building staff from Rome to Judaea by Agrippa, particularly artists who did the wall paintings, but also architects who introduced *opus reticulatum* at Jericho and Caesarea, and, possibly *topiarii*, as well, given the discovery of large numbers of *ollae perforatae* (planting pots) at the Jericho site.³¹ In the absence of detailed information on the dynamics of collaboration in the Roman era, we need to turn to more recent historical periods. A study of royal gardens of other periods indicates a similarly diverse staffing arrangement. Perhaps the most famous model of a design team working entirely with a specific patron is the creative triad of Le Nôtre, Le Vau, and Le Brun at Versailles, along with the fountain engineers, both in terms of the composite skills required and the multiple authorship involved in the design of the gardens.³²

Ars topiaria appears to concern itself with all manner of cut effects: grafting varieties of fruit trees, clipping trees into dwarfed forms (for example *chamaeplatanum* [plane trees kept small by pruning]), pruning and training trees to fit into planters and/or to climb walls, as well as creating what we call today “topiary.” Landgren specifies two types of ancient topiary: plants cut into three-dimensional shapes and shapes created by training ivy or other vines over a shaped form.³³ Additionally, Purcell has suggested that other shapes were created by clipping into low hedges to outline a scene or pattern, much as was seen later in broderies.³⁴ It is not clear which effect Pliny is describing in his Tuscan garden (as the efforts of his *artifex*).³⁵ To these three types of cut

shapes, we must also add the kind of hard pruning of shrubs and trees that produces the variety of effects seen represented in garden paintings. There we see dwarfed trees, but also specimens of the larger, vigorous shrubs, such as viburnum, oleander, and laurel, pruned back so that only single branches grow up into the tightly grouped spaces of these gardens. The artists of the finer of these paintings portray the clip marks on the branches, suggesting the art of the *topiarius*, as well as the labor of the gardeners. A fresco in the House of the Golden Bracelet (vi.17.42) at Pompeii clearly shows a plane tree clipped to remain dwarfed (Figure 14.5). Providing ornate hedging of any of these types for monumental spaces demanded more than simply an ability to prune plants. For Purcell's interpretation of tightly cropped hedging to achieve any kind of

fine two-dimensional effect, the grading of the terrace had to be precise – as flat as possible while still draining. For any other kinds of hedging, the acquisition of the requisite number of plants, installation, and maintenance also required a high level of training and insight.

There are various levels of knowledge required for undertaking *ars topiaria* in vast spaces, private or public. The first is the ability to imagine and to design the kinds of scenes, such as those of the hunt or ships mentioned by Pliny the Elder, both in terms of the layout and also the types of plants and their projected trajectory of growth.³⁶ The second is the ability to source and acquire the necessary plants and materials, particularly for inventive designs. Finally, there is the expertise needed to install and to shape the plants, often in challenging urban or post-construction conditions, and presumably also a large staff trained to maintain them. It seems likely, from Landgren's research, that the *topiarius* possessed the ability to bring to life the patron's desires for the garden, as well as to train workers in the correct techniques for shaping and maintaining the effects, the views, and compositions. Any formal garden relies on a labor force that must continuously work with and against natural processes in maintaining the original conception of the *topiarius*. The very expensiveness and luxury of the effect in part rested on the extensive labor required.



Figure 14.5 Detail from a garden painting, House of the Golden Bracelet, Pompeii, vi.17.42, fresco.

Creating the Design

In the absence of a treatise on *ars topiaria*, we are left with little evidence about the

design process. Yet, because landscape design is demonstrably within the geometric tradition of the other arts,³⁷ architectural and land surveying treatises, as well as extracts from agricultural manuals and other literature, are pertinent to our discussion. Vitruvius' *Ten Books on Architecture* is our primary source on how architectural projects were designed. There is evidence, such as the Severan marble plan of Rome, that plan drawings certainly existed (Figure 14.6A). According to Vitruvius designs were to be made, not just documented, through the types of drawings still used today, including plan (ichnography: Figure 14.6B, hypothetical peristyle plan) discussed above, elevation (orthography), and perspective (scenography).³⁸ For presentation purposes Vitruvius also suggested models.

The use of elevations in ancient landscape design is an interesting topic. A modern elevation is an abstracted, flattened view without any perspective, which is not how humans see. Vitruvius writes: "Orthography is a frontal image, one drawn to scale, rendered according to the layout for the future work."³⁹ Although we have no examples of elevation drawings for landscape projects, at least some garden paintings reveal knowledge of orthography. The artists of these paintings are concerned with the accurate representation of plants and birds, not only in terms of detail, but also in measurement and scale. Similarly, the entire representation of garden space is rendered with some sense of scale, compressed into a single plane, not unlike that of a building façade or architectural elevation (Figure 14.7). Examples of such wall paintings include the House of Stallius Eros (I.6.13), the House of the Fruit

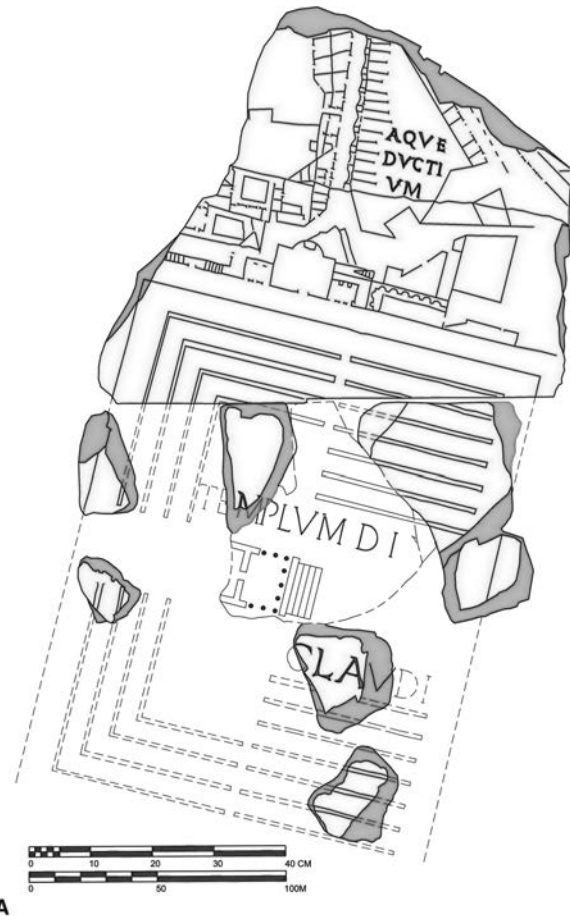


Figure 14.6A Drawing after the Forma Urbis Romae, area around the Temple of the Divine Claudius.

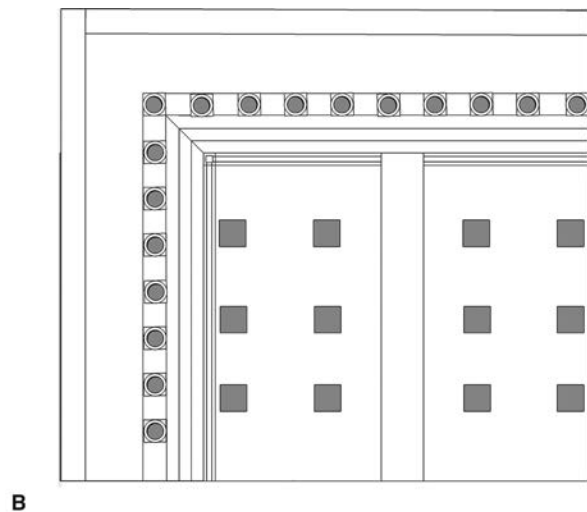


Figure 14.6B Hypothetical peristyle, plan, SketchUp model.

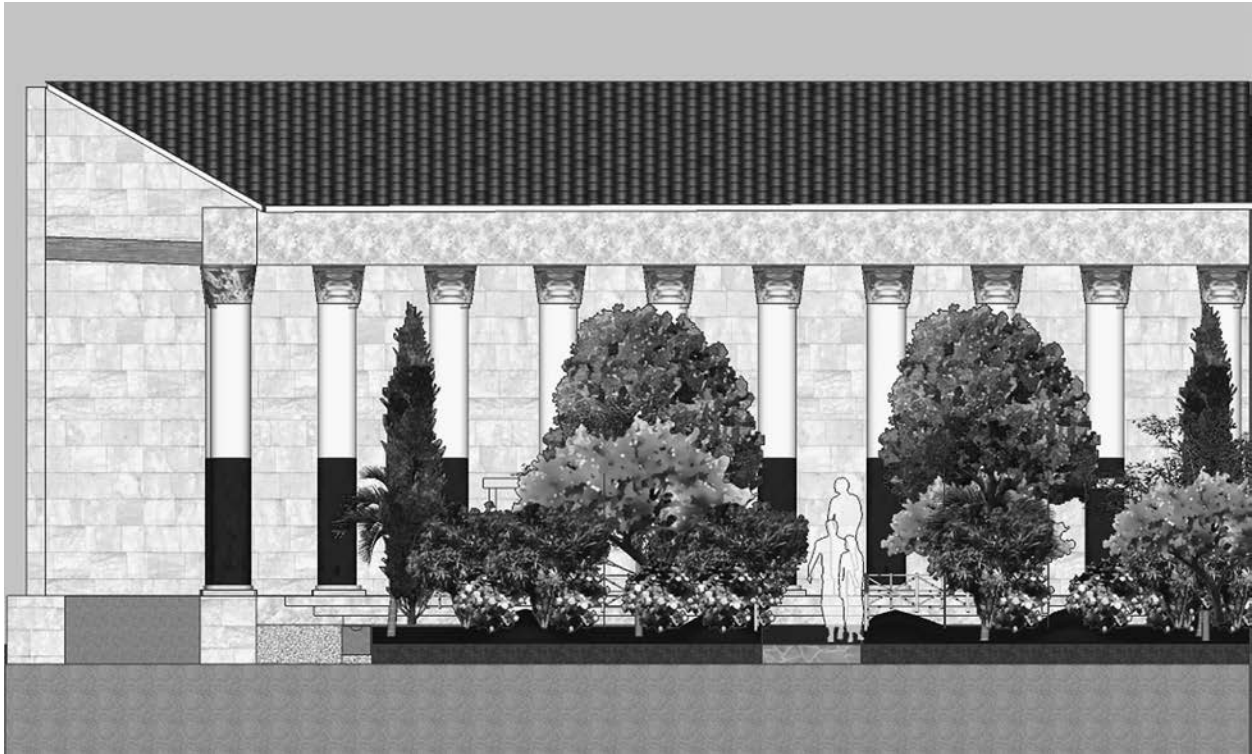


Figure 14.7 Hypothetical peristyle, elevation, SketchUp model.

Orchard (I.10.5: Figure 14.8), and the triangular peristyle of the Villa of Diomedes, all three from Pompeii; and the Tomb of Patro on the Via Latina in Rome.⁴⁰

Perspective drawings, known to the Romans as *scaenographia*, are used today to accurately predict the appearance of a design by *projecting* the drawing from a measured plan, another form of orthographic projection. We have little evidence that the Romans created this type of accurately constructed perspective drawing.⁴¹ However, fundamentally, perspective is the human visual experience of geometry and it is clear from the discussions of Lucretius and Vitruvius that Roman designers and artists employed perspective in sophisticated ways, understanding it as the more or less accurate depiction of three-dimensional space on a two-dimensional surface.⁴² Attempts

at perspective are revealed in numerous Roman wall paintings, where efforts were made to depict the depth of walkways, as in scenes of villas, or the garden beyond a fence or gate, as in the garden painting at Prima Porta or villa façade paintings (Figure 14.9). A scene of two people tending a garden in the House of Emperor Joseph II at Pompeii (VIII.2.39) is in simple perspective (Figure 14.10).⁴³ Perspective is employed, in particular, in Second Style illusionistic vistas in which an articulated façade leads the eye into a quadriportico, often with a central garden and shrine, as at the House of Augustus on the Palatine or that of P. Fannius Sinistor at Boscoreale. Yet, the ability (or desire) of the Roman draughtsman to project true perspective is difficult to determine because the artists chose a distorted perspective for wall paintings, knowing that the observer had

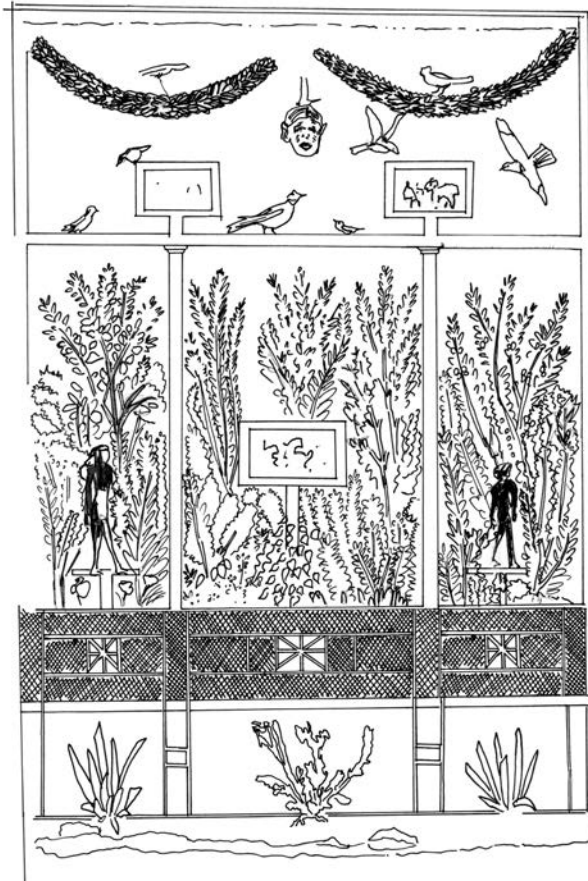


Figure 14.8 Garden painting elevation, House of the Fruit Orchard, drawing.

multiple viewpoints. Thus, various perspectives were combined in a single painting in order to provide as informative an overview as possible, particularly evident in the depiction of garden fences.⁴⁴ Yet, the ability to frame perspective views in actual architectural and garden spaces is clearly seen in gardens of the better-preserved Roman houses, such as the House of Octavius Quarto (Loreius Tiburtinus) at Pompeii. In built architecture, of course, true single-point perspective is clearly evident to the viewer.

Models of gardens, such as that depicted in Figure 14.11, have not been preserved for the Roman era, but modeling complex terracing and architectural projects is an

effective way of designing and is easily accomplished in clays and materials available to the Romans. Vitruvius makes it clear that models are most impressive for the presentation of ideas, but warns that “there are other things for which models cannot be made at all, and they must be built to scale in the first place. And some things that seem perfectly realistic in a model vanish when their scale begins to be enlarged.”⁴⁵ The latter is particularly true with designing, for example, retaining walls in a dynamic landscape. Nevertheless, clay models are one of the most effective ways of studying and demonstrating the spatial issues of proposed changes in land form and it would be surprising if they had not been used in Roman times.

Principles in Designing Complex Gardens

The principles for architectural design, which Vitruvius applies to porticoes, *viridia*, and walks in *palaestrae*, and the houses of the wealthy, offer a useful starting point for considering the design of an ancient garden. Vitruvius’ choice of topics may indicate something about the division of labor with the *topiarius*, a contemporary who was becoming an important figure, so it seems, in the design of Roman gardens. The principles, outlined in Book 1.2.2 are:⁴⁶

1. **Ordering** (*ordinatio, taxis*) is establishing the proportion of the elements to the whole, achieved through modules, agreeably executed (given the requirements of the site).

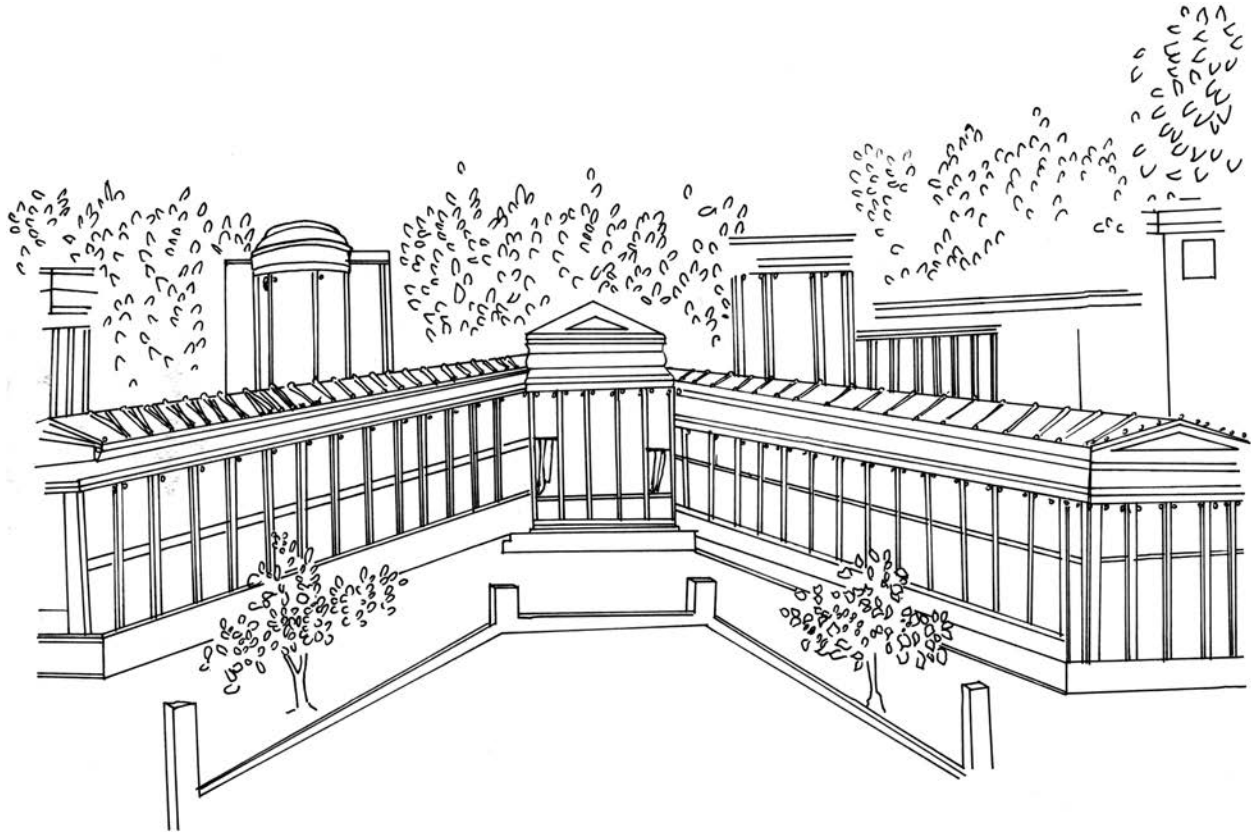


Figure 14.9 Line drawing of perspectival view after fresco from a Roman villa, Pompeii, inv. no. 9406, Museo Archeologico Nazionale, Naples.

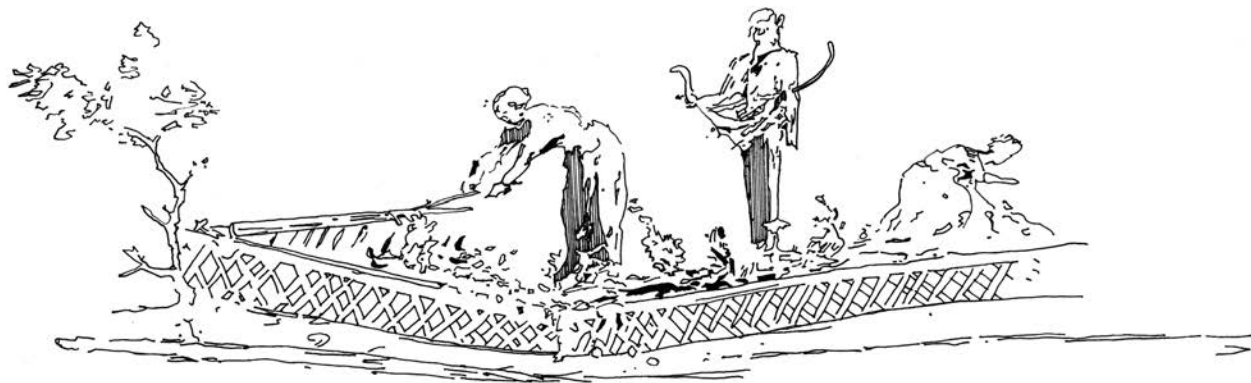
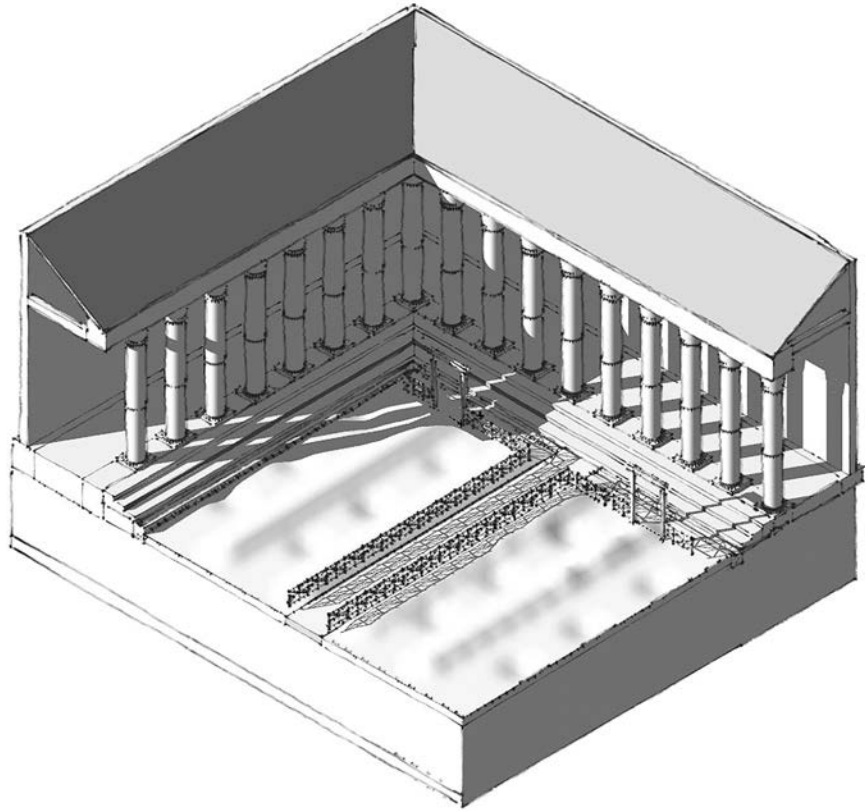


Figure 14.10 Line drawing after fresco from the House of Emperor Joseph II, VIII.2.39, Pompeii, inv. no. 9406, Museo Archeologico Nazionale, Naples.

2. **Design** (*dispositio*, *diathesis*) is the “apt placement of things according to the nature of the work.” Vitruvius defines the types of drawing in this passage and suggests how analysis and invention lead to design.

Analysis is the “vigilant attention to the execution of the project,” while invention is “the clever solving of the specific problems to produce new principles within the traditional framework of what is known.”⁴⁷

Figure 14.11 Hypothetical peristyle in model form, SketchUp model (M. Palmer).



Howe and Rowland describe *ordinatio* and *dispositio* taken together as similar to the contemporary idea of “Parti.” Parti is a term used by designers to mean the most basic and abstract underlying form of a design. In the case of much of modern landscape design, this is not always geometric. It does appear that elite Roman gardens followed some underlying geometric form, although Jashemski notes a number of small *domus* gardens at Pompeii that are casually laid out.⁴⁸ What seems likely from the descriptions in Vitruvius is that the inception phase corresponds roughly to what is considered “concept design” today.⁴⁹

Wilson Jones points out that though the record is limited in terms of working drawings (made to guide construction), the surviving examples clearly show how geometry guides the transition from plan

to building. These are all drawings in stone to guide building projects, such as those from Heliopolis, the Pantheon in Rome, and the Temples of Apollo at Didyma and Pompeii.⁵⁰ Unfortunately, no working drawings are known that include garden designs. Here we rely, as previously mentioned, on plan drawings of architectural complexes made after construction, such as the Severan marble plan and votive plans of tomb gardens. These depict garden areas and record the basic geometries used, although many of the conventions used to represent the garden features are not clear to us today.

3. **Shapeliness** (*eurythmia*) is a well-designed and proportionate composition of elements creating an attractive appearance. The distinction between eurythmy and symmetry has been a much-debated

one.⁵¹ It appears to relate to what we would call “massing” today, the initial project of the plan and elevation into three dimensions to study the resulting form. As Wilson-Jones notes, *eurythmia* is the bridge between balance and form, harmony lying in the quality of being well shaped and lending beauty to symmetry, which is based on calculation.⁵² In application to the landscape, it would probably concern the general arrangement of architectural elements on the site.⁵³

4. **Symmetry** (*symmetria*) is the relationship of the proportions of the elements to the whole. This principle ties into Roman notions of beauty, and while initial studies of garden enclosures, such as porticoes, suggest that *ars topiaria* was concerned with ideal proportioning systems, the layout of specific garden designs has yet to be analyzed.
5. **Correctness** (*decor*) is the appearance of the project suited to its function, tradition, or nature. Function refers to the right design for the use – temples of different types, for example. Tradition refers to the cultural associations a people make about architectural elements. The architect creates confusion when they are mixed (Doric with Corinthian elements, for example). Nature refers to the healthful siting of rooms and elements.⁵⁴ The notion of “form follows function” captures some sense of this passage, although we should be careful not to take a modern point of view.

Again, this is a set of considerations for the design phase of the project. Vitruvius is clearly indicating that the designer can work with these factors prior to building and they can be assessed in the drawings.

The passage is helping the reader anticipate the areas of criticism likely once the project has come to fruition, or that had already been directed toward existing projects. For example, Vitruvius’ directive to create porticoes and *viridiaria* behind theaters, as at the Theater of Pompey, can be read in relationship to the earlier disapproval of such facilities by Cicero, who wrote: “Out of respect for Pompey’s memory I am rather diffident about expressing any criticism of theaters, porticus, and new temples, and yet the greatest philosophers do not approve of them.”⁵⁵

6. Finally, **allocation** (*oikonomia*) is “the efficient management of resources and site, and the frugal, principled supervision of working expenses.”⁵⁶ He notes that people of high rank need designs that accommodate their activities, and in Book 6 lists *ambulationes* among the features required on their properties.

The Stages of the Design Process

Vitruvius is specific about the process of design, although as Howe and Rowland note, “none of Vitruvius’ prescriptions constitute what could be called a full design ... [they] seem to carry the act of design only up to a point, after which it seems that the final business of design is left until the time of execution, possibly to other artisans.”⁵⁷ The economics of building materials and labor have been closely studied by Janet DeLaine for the baths of Caracalla and more generally for Rome by Rabun Taylor.⁵⁸ This kind of study has yet to be done for a monumental garden project, but models are available for similar scales of design from other periods in

garden history. Mark Leone, for example, has looked closely at workforce and materials to illuminate the role of slave labor for landscape designs in the Tidewater region of Maryland and Virginia.⁵⁹

BUILDING THE GARDEN

While it would not be possible to say that the exact design process described by Vitruvius for architecture has direct corollaries to that of the professional landscape architect today, certain steps are necessary to the development of any design. Furthermore, the kind of gardens and designed landscapes that we are able to find archaeologically are typically those integrated into architectural complexes, so the stages of design and construction must be coordinated with those that Vitruvius describes. Wilson-Jones provides a summary in Table 14.1.

A project must be conceived with a conceptual idea such as “I will dedicate a temple on the Palatine with fine walks, and trees from all quarters of the empire.” The process of imagining what this place will look like and how it will be constructed becomes gradually more and more specific until everything is considered prior to building. These choices include the functional elements such as pathways and

walls, exact dimensions, material choices, style, and furnishings. In contemporary practice, there is no single workflow, as project schedule and budget often dictate the process to some degree, but large-scale projects that involve multidisciplinary teams do often follow a fairly predictable process. Table 14.2 expands upon the above to summarize a typical process from inception through the construction process, which Vitruvius does not lay out.

Surveying

After the design is complete, the next stage in the process of building a monumental garden is to transfer the design from a drawing to a layout on the ground. Often in the Roman world, this process was facilitated through the creation of carefully leveled terraces, podia, or other engineered ground surfaces. These surfaces simplified calculation and created level surfaces for all aspects of inhabitation. This is very clearly seen at “Horace Villa” at Licenza, where this large villa was created on a natural saddle-like site between two hills on the east and west, sloping down to valleys on the north and south.⁶⁰ The site was first leveled through a complex process of cut and fill to create a large terrace on which the villa was constructed. This work not only prepares the

Table 14.1 Vitruvius’ conception of the design process.

Generalities	Abstract design independent of site		Specifics
I	II	III	IV
Inception	Preliminary scheme	Interim scheme	Definitive project
Rough idea of character, size, and site of project [decor]	Outline, dimension, and proportions [<i>symmetria</i>]	Mathematical and formal conflicts resolved [<i>symmetria</i> , <i>eurythmia</i>]	Modifications to suit the site, use, and beauty [definitive <i>symmetria</i> , <i>eurythmia</i> , <i>decor</i>]

Table 14.2 Phases of design and implementation in modern landscape architectural practice.

I	II	III	IV	V
Concept	Schematic	Design development	Construction documents	Construction phase
Envisioning the project. Ideas may be abstract and focus on case studies of other design solutions to similar site issues.	Several concepts are developed to a feasibility level. Rough dimensions and style ideas are presented. While the actual site is considered, no exact calculations are developed at this time.	One concept is selected to be developed to a level of great detail. Feasibility and cost are calculated. Materials are selected and the design is relatively complete.	Detailed drawings are developed that convey the design to a contractor to be built. These drawings are considered a contract. The level of detail allows the design to be constructed with minimal oversight by the designer.	The designer ensures that the project is built according to the drawings. During construction, the designer makes small adjustments to respond to unforeseen issues. The contractor and designer may work out solutions together.

site for architecture, which requires level floors, but for gardens, which also require well-calibrated gradients for the water and drainage infrastructure. This involves the understanding of scale and would be accomplished with the cooperation of the architect and the land surveyor. It would appear that little archaeological evidence remains of the initial survey of the site, but these plans or first markings in the ground are embedded in the final layout. Because of the amount of earth moving that may occur in a large-scale project, the surveying of the design onto the landscape may take place in several stages.

In the initial stage, the overall scope of change is projected – where terraces and buildings will be placed, for example. Although the layout may be fairly gross at the initial stages in order to establish the extent of terraces or building platforms, quite clearly, Roman sites were intended to be laid out at right angles with most design elements parallel and perpendicular. Taylor points out the deviation in the

remains of built projects from any idealized geometry, such as the plan of the villa of Maxentius, which is subtle and noticeable in plan but nearly impossible to discern on site.⁶¹ It is unusual, even with contemporary survey methods, for final layout on the ground to comply exactly with the original design on paper (or its equivalent), as it is rarely possible for tradespersons to create sites with absolute precision. Most minor deviations or distortions, however, are not disturbing because human sight tends to seek order whenever possible.

Archaeologically, the results can be found on the land, detectable in non-destructive investigations in the form of the outlines of constructed terraces, roads, or boundary features (see below); and later from excavation through the discovery of buried surfaces. The precision with which the built features are laid out as individual elements and as a complex indicates the extent to which formal methods of surveying were used to implement the

design. Roman surveying treatises collected in the *Ars agrimensorum* explain how to survey a variety of land shapes (lines, grids, corners, squares, parallelograms, polygons, etc.) and these methods have had a longstanding influence on European and Mediterranean surveying history. Employing these ancient texts and the preserved physical evidence, it is possible to decipher, in a rudimentary way, ancient surveying methods. We may not be able to ascertain the exact process, but we certainly can appreciate the expertise needed to successfully design and build ancient gardens (Figure 14.1A).

Building the Foundations of the Garden: Terracing

Peristyle and portico gardens are essentially created by terracing: leveling a surface on a naturally sloping site. Substantial walls are built to retain earth as well as to form the foundations of the architectural features, such as colonnades and other buildings associated with the garden. The concept of “foundation” also refers to the layers of earth fills used to level the topography and to provide a suitable matrix for infrastructure (irrigation pipes, cisterns, drainage, etc.). These construction layers are usually well preserved on archaeological sites, although it can be expensive and difficult to conduct excavations to the depth needed to reveal this substructure. As a result, we have only glimpses of gardens of a monumental scale, although such evidence continues to increase.

The initial phase of constructing a garden on a leveled surface is to create a terrace to support the plantings as well as pools, fountains, or architectural features such as

pavilions. Many large-scale Roman gardens occur in places where the natural topography included slopes, some extremely steep. Before beginning earth-moving, the designer and builders would have agreed upon one of four strategies: 1. Build a terrace on vaults or other architectural structures, which require imported fills, such as at the Domus Tiberiana on the Palatine in Rome and at the late Roman *praetorium* at Caesarea Maritima, Judaea (Figure 14.12A). 2. Cut the terrace into the slope, as at the pool terrace at the Pool and Garden Complex at Petra (Figure 14.12B). 3. Build a fill terrace of exclusively imported material held in place with a retaining wall (Figure 14.12C). This might be on a sloping site, as on the garden terrace at Petra, or rising up from a plain, as at the Porticus of Pompey in Rome or the Palaestra at Sardis. While bringing in fills can be labor intensive, it has the advantage of being an economical way to bury pre-existing building remains, as seen at the Villa Santa Maria at Nemi,⁶² the Hasmonean and Herodian palaces at Jericho,⁶³ and at the Temple of Apollo at Pompeii.⁶⁴ 4. Most frequently and economically, a combination of cut and fill is employed using the material from the cut as the fill. There is some indication that this was true at Petra (above) but phasing is complex; Netzer documented a more typical example at the Sunken Garden in Jericho (Figure 14.12D).⁶⁵ In the Roman world, such earthwork would have required a great deal of labor, both animal and human, to haul rubble for fills, excavate cuts, and place fills; retaining walls or vaults would have required skilled masons.

Plans for water-harvesting systems would have been executed at this point,

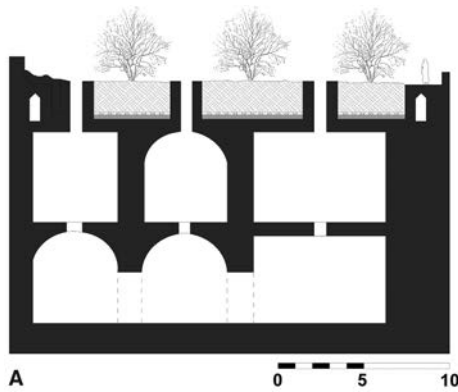


Figure 14.12A Terrace on vaults or other architectural structures, Domus Tiberiana, section in SketchUp.

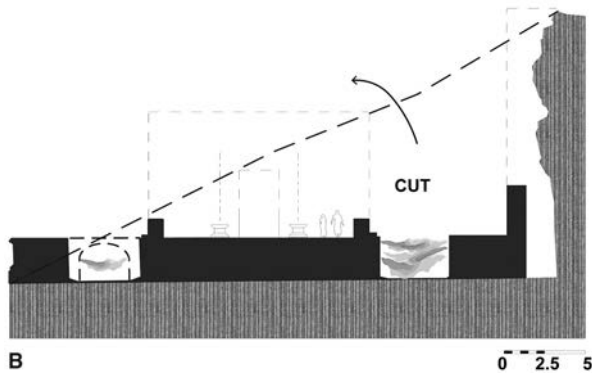


Figure 14.12B Terrace in cut, Petra pool terrace, section in SketchUp.

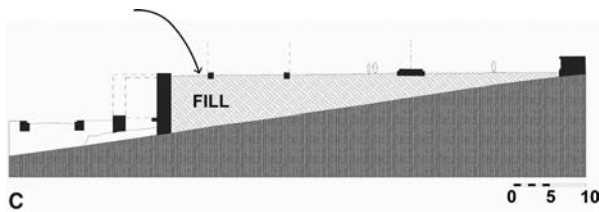


Figure 14.12C Terrace in fill, Petra pool terrace, section in SketchUp.

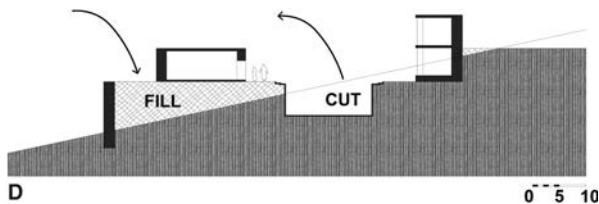


Figure 14.12D Terrace in cut and fill, Jericho, section in SketchUp.

if they included subsurface storage in underground cisterns or tanks, or rock-cut pools. Additionally, ornamental pools and swimming pools would be installed at this time. The laying of foundations for buildings, garden walls, and porticoes would also commence, once the retaining walls or supporting structures and the rough terracing were in place. Associated pipes and channels for water and sewage to the overall complex would be undertaken wherever these systems were called for in the project plans. Often today only the first extensions from the main water and sewerage lines are put in place, pending further construction of the complex – called “stubbing out.” Such a process is difficult to identify archaeologically, except perhaps in cases where later robbing stopped at the original point of connection (Figure 14.13).

In contemporary terminology, the areas used for the construction and ornamentation of the architecture are called “staging areas.” The exterior spaces such as courtyards used as staging areas would accommodate material storage, spaces for artisans to work, and storage and maintenance of tools. At Herod the Great’s Winter Palace in Jericho, for example, the courtyard was leveled with cobble fills on the banks of Wadi Qelt, then sealed with a rough plaster surface on which artisans prepared the wall paintings and decorative stucco work (Figure 14.14), as evidenced by small pots of pigment and spillage found on this pavement.⁶⁶ At this point in the construction process the fills of the platform are varied and compacted because of constant traffic, storage of heavy materials, processing of lime mortars, and other activities. The compaction of the earth and the debris left from

Figure 14.13 Hypothetical peristyle, building the major features, SketchUp model.

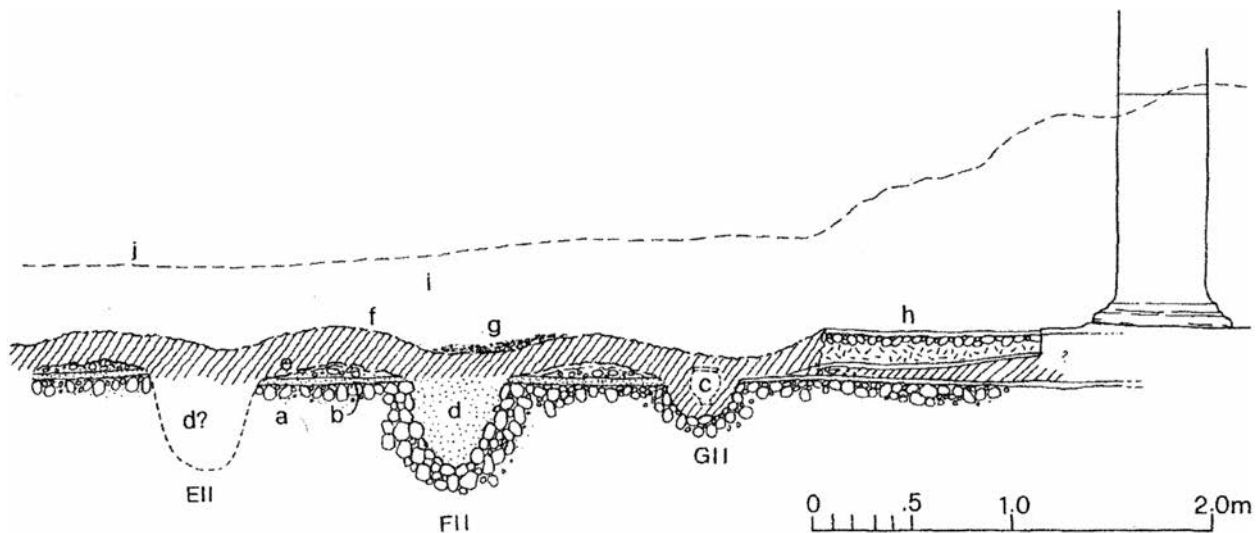
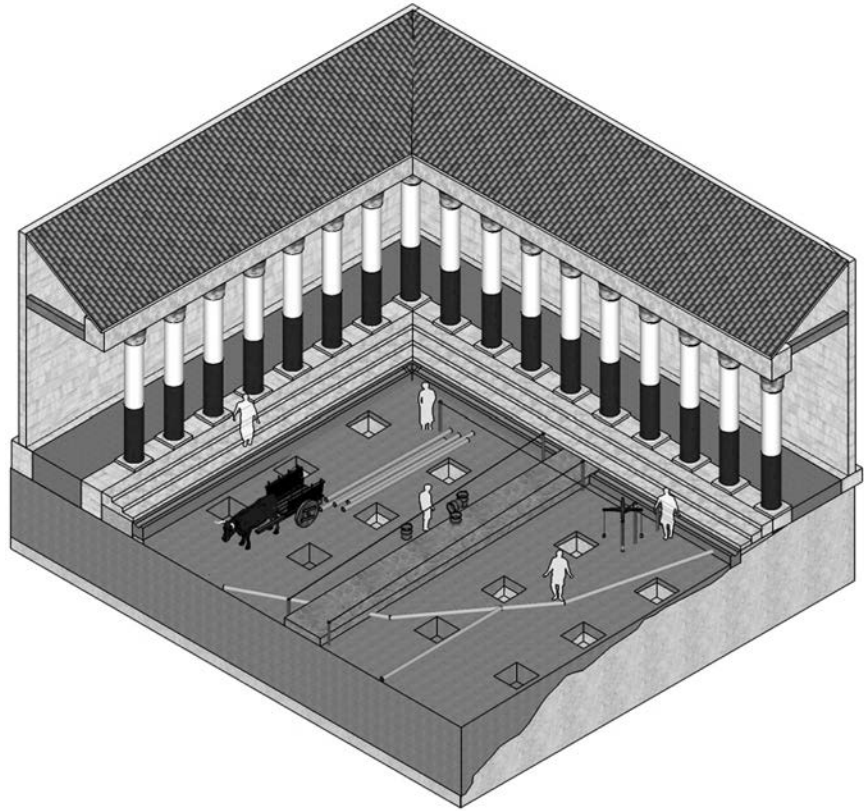


Figure 14.14 Section from Herod the Great's Winter Palace at Jericho, section drawing.

these operations would have left the site in a condition unsuitable for the cultivation of a garden. The removal of construction debris at the end of heavy site and building construction phases is essential

to creating an environment conducive to cultivating plants, which grow best in high-quality garden soil. Construction debris, such as the components of mortars, can negatively impact soil properties.

Nevertheless, it is often convenient and cost-effective for builders to bury these materials rather than haul them away, the evidence for which can be clearly found through excavation.

The final construction phase described above was the finishing of the surfaces of the architecture. Wall paintings or frescoes provided colorful and richly adorned frames of imitated marbles, illusionistic gardens, and mythological evocations around the garden. We suspect that the finest, and final, stages of ornamentation of the architecture may have been done after the installation of the garden plants (see below), but archaeological evidence noted above points to the preliminary plastering of walls and colonnades prior to the final installation.

The initial phases of the garden layout and construction would begin on the prepared garden surface of the terrace once work on the surrounding architecture was completed and the staging area no longer needed. Sometimes the terrace is fully or partially on or cut into bedrock. In these cases, tree pits and channels, pools, and postholes had to be dug directly into rock early in the construction process. The precinct of the Temple of Hephaistos in Athens had rock-cut planting pits, which were watered by rock-cut water channels. The bedrock under the gardens of the Piazza d'Oro at Hadrian's Villa was found to contain a complex series of rock-cut channels that directed water movement beneath the garden level of this large courtyard garden (Figures 14.15A; 14.15B).⁶⁷ At Herod's palace at Caesarea, the peristyle featured a great rock-cut pool, around which the builders cut shallow rectangular trenches, probably for plantings between the columns around the pool. Rock-cut planting

pits are typically found in sites with permeable bedrock, such as tufa, limestone, or sandstone, from which water can drain; otherwise, plantings may become waterlogged and fail.

Rough Grading: Bulk Earthwork

Where extensive earthwork was required, the initial shaping of the terrace, called "rough grading" in contemporary terminology, would have commenced at this point. The term "rough" implies approximation or a level of coarseness rather than poor craftsmanship. Grading of the site refers to the manipulation of the ground plane to shape surfaces and landforms. Massive earth moving has long been accomplished manually, even on projects as extensive as Central Park in New York City, where the entire original land surface was reworked by laborers using wheelbarrows and horse carts.⁶⁸ Two surfaces are constructed in this process: the subgrade and, over it, the finished surface. The subgrade is the unseen, supporting surface below the garden soil or pavements. Mainly, the rough grading of the subgrade includes shaping of the subsoil for removal or placement of earth or gravel fills and for directing subsurface drainage. Often, though not always, the subgrade surface will not drain as freely and would contain poorer quality soils with little organic material. In the Vesuvian region, such as at the Villa Arianna in Stabiae, there is almost no discernible difference between the garden soil and the subsoil in terms of permeability. In an opposite case, at the Piazza d'Oro at Hadrian's Villa, the subgrade is



A

Figure 14.15A Bedrock at Hadrian's Villa.

actually bedrock (tufa). The preparation of the subgrade also includes excavation and/or placement of the more subtle cuts and fills than in the rough grading to bring the subgrade to the elevations desired, leaving room for the garden soil, pavements (including sub-surface base courses), and other features. Excavation of individual tree pits in soil in this level can also be undertaken at this time.

Fine Grading

The surface “fine grading” refers to final shaping that can be seen and measured at the surface in terms of ground plane, and, in contemporary terminology, is referred to as “finish grade.” This surface must relate closely to the architectural edges, such as gutters, steps, and moldings. A peristyle courtyard surface would

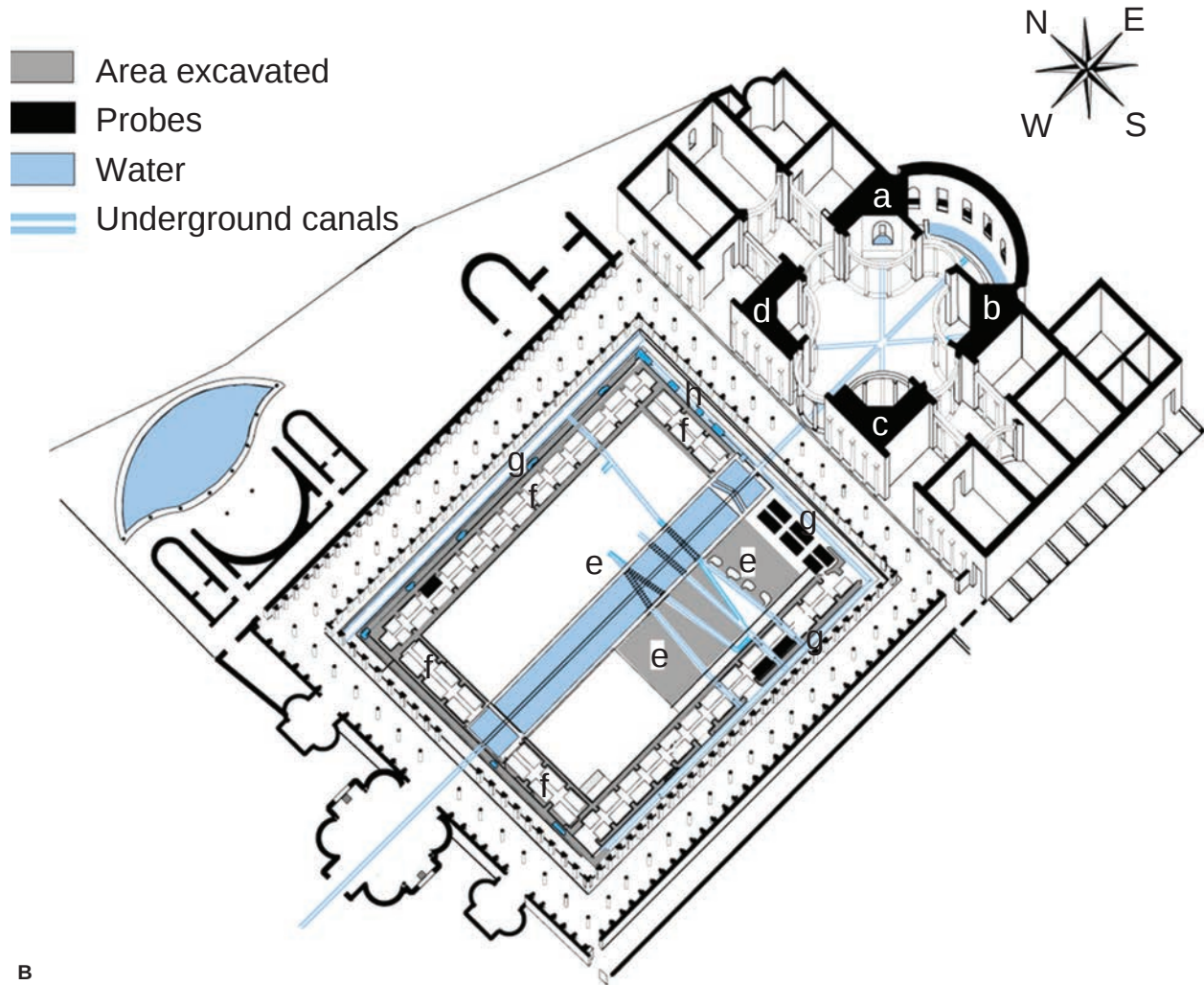


Figure 14.15B Hadrian's Villa, axonometric drawing.

respond to the elevations of the surrounding colonnades; however, it would have a subtle sloping of the surface to drain excess surface water as required. For instance, at the Villa Arianna at Stabiae near Pompeii, the well-preserved surface, which was documented by LiDAR, appears level to most observers but actually slopes 0.9 percent (90 cm drop over 100-meter distance: Figure 14.16). Also, the subgrade and finished grade levels would not always have the same gradient

because the subgrade may need to be directed towards a subsurface drainage system or cistern. These subtle elevation changes are not always readily apparent without careful measurement.

These surfaces control the flow of water, which could be directed in several ways. Water harvesting was accomplished at the Villa Arianna through the combined use of gutters and surface grading. The gutters captured rainfall from the peristyle roofs and directed it through a series of

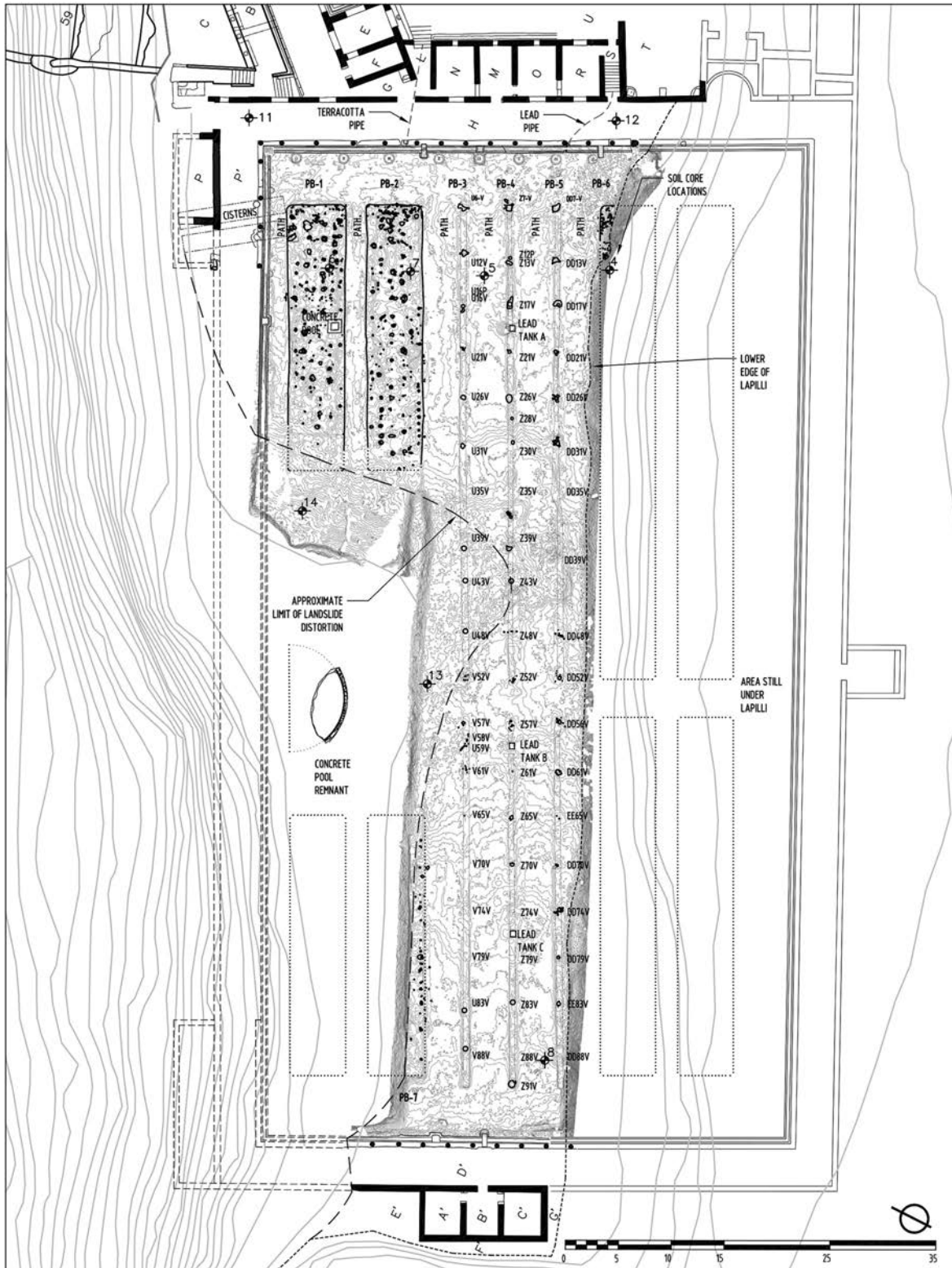


Figure 14.16 Villa Arianna at Stabiae, state plan with LIDAR.



Figure 14.17 Villa Arianna, garden surface.

settling basins and to pools and cisterns below the garden surface (Figure 14.17). On the garden terrace itself, the relatively flat surface grading (0.9 percent) allowed the maximum amount of water infiltration from rainfall into the beaten earth walks and planting beds, where the particularly porous volcanic soils also have the remarkable property of being moisture retentive.

Once the process moved beyond the bulk earthwork, specialized workers would have been needed to install piping, place pavements, and install other garden features such as fountains. A gardener would have overseen the placement of topsoil and amendments, such as fertilizers or organic material, at the site, if this had not been done before the soil was transported. Accomplished under the direction of the *topiarius*, the micro-topography of the terrace – the subtle shaping of planting beds and walks – would have further

helped in directing the flow of water. If these surfaces are preserved archaeologically, as in the Vesuvian region, they offer an abundance of information about the garden's design, purpose, and method of irrigation.

In large gardens and public parks framed by architecture, there is emerging evidence that calculations for this stage of preparing the terrace were undertaken to establish grades prior to construction. Figure 14.18 is an interpretive grading plan (a type drawn by landscape architects today) of the Villa Arianna's Great Peristyle garden. In addition to showing the way water drained across paths and beds, this study of the site's grading reveals that the surrounding portico sloped to match the grade of the garden terrace rather than being level, as would be expected in contemporary building practice. The Romans were capable of finely surveying sites and buildings and

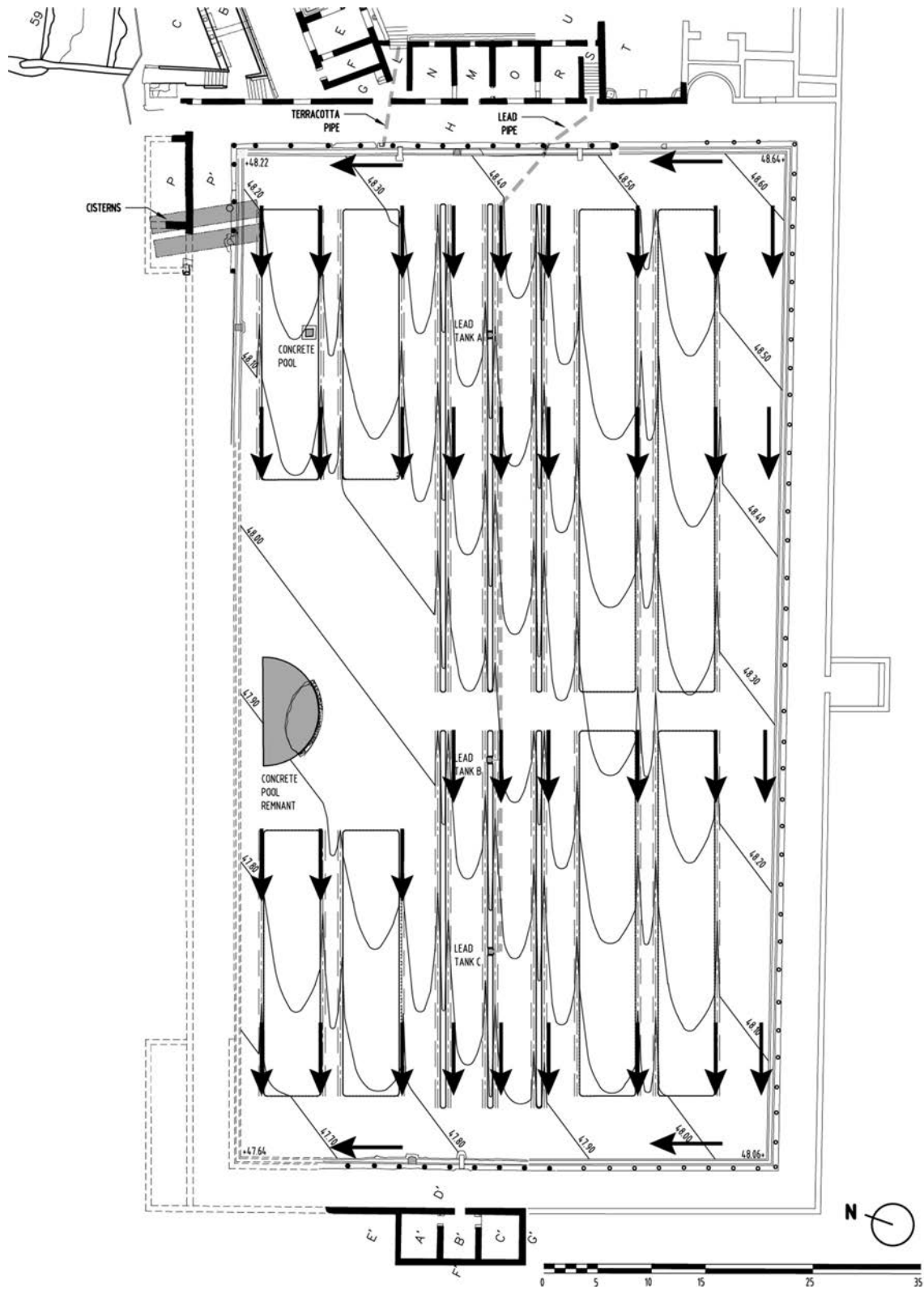


Figure 14.18 Interpretive grading plan of the Villa Arianna's Great Peristyle garden.

so the choice must have been a conscious one. At the Villa Arianna, and in all gardens, the ground of the terrace is deliberately shaped to provide for pedestrian movement, drainage of pathways, and management of water for plants.

There are few studies of terrace surface engineering with which to compare the Arianna garden. At Horace's Villa in Licenza, a landscape architect assessed the terrace in 1930–2.⁶⁹ Although he did not have the surface preservation of the Vesuvian region, Thomas Drees Price used spot elevations on the porticoes and garden surface to understand the site grading of the large peristyle in relation to the architecture of the villa. He noted a similar situation to that observed at the Villa Arianna:

The ground levels of the villa form two sloping planes: one is that of the house proper, which slopes generally downward at a 0.9% grade from east to west in the direction of the main sewer; the other is that of the porticus, which descends away from the house at a grade of 1.7%, following more or less the slope of the ground. (p. 138)

A pavement slab found on the garden side of the opening at v (P. 34) shows that the level of this garden was 8 inches (0.203 m.) below that of the porticus in that region. With all probability this difference of level was uniform on the three sides of the porticus away from the house, and the general slope of the garden was the same as that of the porticus, namely 1.7%. (p. 141)⁷⁰

He also noted that the building and porticoes rather than being level, as might be expected in contemporary practice, instead followed the slope of the site. In a garden feature that corresponds with need

for sloping gradients, we see gutters for water collection, capturing roof runoff at the Villa Arianna, and many other houses and villas in the Vesuvian region. These gutters must slope in order to direct the water, while the adjacent roofed walks of the peristyle do not require slope – roofed floors can be absolutely level.⁷¹ At Horace's Villa, Price describes a similar situation.

In both cases, the soil was 0.15 to 0.20 meters or 6 to 8 inches below the gutter that edged the garden. It would not be possible to achieve this consistent grade relationship between the architecture, gutters, and garden surface unless the architecture surrounding the garden sloped as well. Price only had spot elevations available to him to evaluate the grade relationship between the building and garden, while at the Arianna, we have the detailed LiDAR surface scan that captures the subtlest aspects of the contouring of the surface of the garden, with the exact elevation of the soil surface as it was at the time of the eruption.

Thus, what we see in both examples, but most clearly at the Arianna, is very different from contemporary practice where an architect almost always sets a level building platform and then the unroofed areas of the site are designed to accommodate this platform. In the described Roman garden terraces, the floors of the building and porticoes slope subtly to accommodate the fine terrace grading, water harvesting, and the other needs of the open space rather than the desire for a level building platform, which is, again, counter to present-day building practice.

It is also at this point that well-constructed paths, necessary for a pleasant stroll in fine clothing, were created. The process is carefully discussed by

Vitruvius, who clearly indicates the laying out of paths as being within the purview of the architect:

This is what to do to make [walkways] always dry and never muddy. Excavate the site as deeply as possible and empty it out [this step has already been accomplished in our discussion]. To the right and left, make masonry drains, and in the walls facing the walkways, insert tubes that slope on an incline into the drains. Once these have been completed, fill the site with charcoal and above that spread the site with sand and then level it. Then, because of the natural permeability of charcoal and the arrangement of tubes and drains, any overflow of water will be carried off, and in this way the walkways will be dry, free from standing water.⁷²

There is, as yet, no archaeological evidence of charcoal layers, but careful leveling and compacting of paths are clearly evident at the Villa Arianna and at Oplontis, where the nature of the volcanic soils allows for good drainage.⁷³ This is true of the gardens of Licenza, Jericho, and Herodium, as well.⁷⁴ To date, archaeological remains of paths in villa and palatial gardens indicate a preference for beaten or tamped earth. Stone and mosaic pavements are mainly attested in the public streets and porticoes of temples and *fora* around the empire.

Other features are preserved in the archaeological record for this stage: the layout and installation of bases for fountains and statues; masonry couches or other furnishings; supports for trellises; decorative walls and edges; and light fencing. The archaeological record also shows that below-grade foundations to

support these elements would have been installed in new gardens, prior to laying the finished soil surface. At Horace's Villa, archaeologists found compacted brick footings for a light trellis near the central pool.⁷⁵ For instance, at the Petra Garden and Pool Complex the stone foundation courses to support a trellis are rough at the bottom and more finely dressed near the top.⁷⁶ This difference in the workmanship of these foundations was used to determine the original finished grade in the absence, in the case at Petra, of a preserved ancient soil surface.

Placing the Topsoil and Installing the Vegetation

With the terrace graded, the final preparation for plants is the bed preparation, which may take several forms, depending on the site conditions:

- 1) If the subgrade across the entire terrace is a soil of average quality, trees and shrubs can be planted with added fertilizer or other amendments. This situation is seen in the deeper volcanic soils of the Mediterranean, particularly at Pompeii, but also at other volcanic areas, such as the slopes of Lago di Nemi, south of Rome. The Villa Arianna was built on a pre-existing cultivated terrace, probably a field for crops, as fields were also commonly terraced on the slopes below Vesuvius.
- 2) If the subgrade is the natural subsoil level, with little organic content, it must be entirely covered with topsoil. This may entail importing fill to cover the whole area or plowing and significantly amending the existing subsoils with better soil

or organic matter. Replacing the surface of a terrace with amended soil characterizes an orchard, vegetable garden, or garden design in which the entire terrace is cultivated. At Jericho, the working surface of one peristyle was fitted with rows of raised ridges made of rough mortar and pebbles. These ridges apparently directed water into planting pits placed between the rows (Figure 14.13). This movement of water happened in the sub-surface of the garden, as the ridges and planting pits were covered with a layer of imported fertilized garden soil, spread across the entire surface of the courtyard. The surface of this soil layer was, in turn, shaped into ridges and furrows. At Horace's villa it is clear that the late Republican garden level, a rich brown loam, was buried under a layer of local yellow clay subsoil used to raise the level of the ground for a new garden. Over this, another layer of brown loam topsoil was then laid for the new garden.

- 3) Beds cut into the soil of the terrace may be raised slightly above the surface, as at the Villa Arianna, or sunken below and have their own soil structure to support plants. The Roman garden at Fishbourne, discussed above, had its planting areas cut artfully into the yellow subgrade and filled with rich organic topsoil. Plants in bedrock cuts frequently have a special series of soils to support drainage, as discovered by Thompson in the pits around the Temple of Hephaistos in Athens (Figure 14.19).⁷⁷ Whatever the form, typically the water supply and drainage of this type of garden are closely tied to the overall grading of the terrace.

The final placing of the soil requires planning. In contemporary practice, in

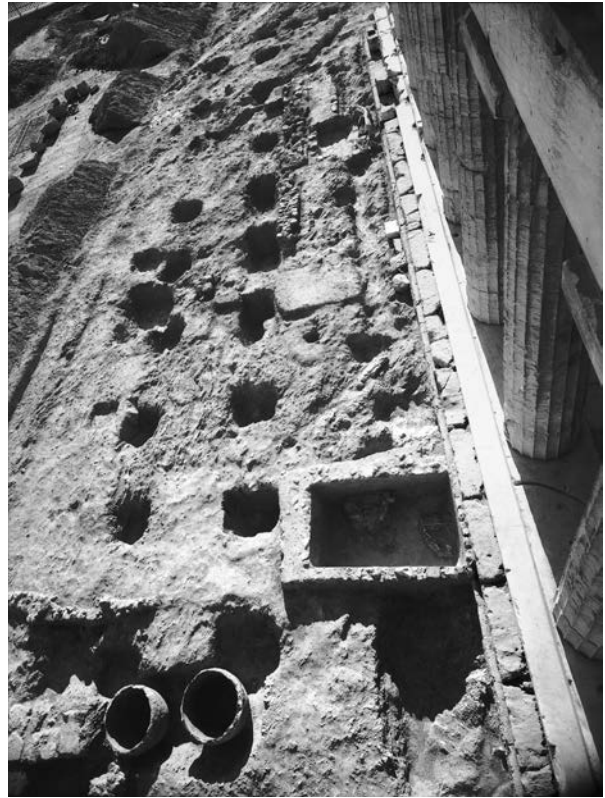


Figure 14.19 Rock-cut pits at the Temple of Hephaistos.

order to not compact the topsoil, placement begins in the most remote corner and proceeds toward the access point. The goal is to not disturb the newly placed soil by human or animal foot traffic. Ideally, the subgrade is loosened, if it has become compacted, and the topsoil is laid across the terrace or in the beds in a manner where the workers literally back out of the site. Soil amendments may be added at this time and mixed with the soil.

A final smoothing and shaping of soil contours completes the bed preparation. Well-preserved surface contours are rarely observed in most archaeological conditions, but the Vesuvian region offers a wide array of contours. Again, note that there may be a distinction between the installation of structural plants, such as larger trees, and finishing plantings. Large



Figure 14.20 Soil shaping to direct water to plantings at Oplontis.

plantings, particularly those set into cuttings in the bedrock, may be installed earlier and soils may be placed around them. Smaller plantings are often done after the garden beds have been given their final surface shape. Subtle shaping may direct water and moisture to the center of the planting pits, as in the “sombrero formations” observed by Wilhelmina Jashemski at Pompeii and Oplontis and noted in Chapter 16. Shallow channels were constructed to direct water to trees at Oplontis (Figure 14.20). Soil was slightly mounded around individual plant stems and a shallow trench cut around each to capture water. Mark Robinson has detected, in the shaping of the topsoil, an area for bedding plants in a Pompeian garden at vi.18i.⁷⁸

In the Jericho garden discussed above the shaping of the surface augmented the subterranean ridges in order to provide more water to the plants (Figure 14.14).

Landscape architects, often working with horticulturists or gardeners, group the plantings in gardens according to general types with similar characteristics for aesthetic purposes as well as growth habit and cultural requirements. Woody plants include trees, shrubs, and vines; herbaceous plants include short-lived vines, herbs, vegetables, and annuals. Annual plants, as the name suggests, require seasonal replanting, while perennials, which return over several seasons, may persist for years. The placement of the smallest plants would typically be the last phase of installation in most gardens and parks, though of course ongoing changes and replacements frequently occurred over the growing season in all types of gardens.

To begin planting, the design is set out with stakes or other markers, particularly for the major plantings (Figure 14.21). Depending upon the size of the plant being installed, holes are dug to receive the plant (this is done earlier for rock-cut pits, as indicated above). There is increasing evidence that plants for more elite gardens were initially grown in nurseries and brought to garden sites in pots, baskets, or bare-root, while other plants that do not transplant well were likely grown at the site from seed or slips. Staking occurs at the time of planting, particularly of young trees on windy sites, and of vines. Stake holes have been found extensively in Vesuvian gardens, as well as in less exceptional conditions, such as at Horace’s Villa at Licenza.⁷⁹

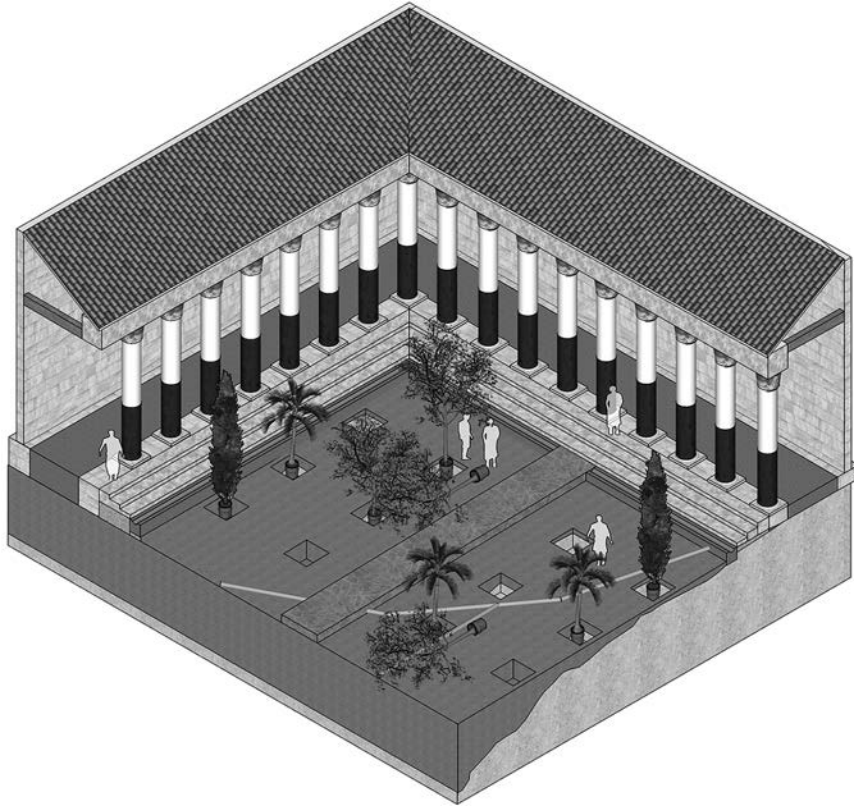


Figure 14.21 Hypothetical peristyle, installing major plants, SketchUp model.

The final shaping of the soil thus accommodates these new plantings. Today, mulch is then added to the surface to assist in retaining soil moisture but archaeological evidence for the presence of mulch in the Roman period has not been reported.

A period of establishment is needed after planting, as plants undergo a process called “transplant shock” in which growth stops for days or weeks until the plant gets acclimated to its new environs. If the plant’s root system cannot adjust quickly enough, it dies. Periods of moderate weather ease plant establishment, so most planting in the Mediterranean is done in late October for trees and seedlings, and February and March for cuttings and branches.⁸⁰ Distress to the plant is exacerbated by hot, dry weather, and Columella (v.10.8) recommended that

bundles of twigs be inserted into planting pits with the tops sticking above the ground surface to best direct irrigation water to the roots during the summer months. Successful root establishment in arid conditions, and effective use of irrigation water, may also account for the common Roman practice of burying plants propagated in baskets and ceramic pots directly into the planting pit.⁸¹ In general, whatever the season, nearly all plants require extra water until they are established. Once their root systems have spread and the small root fibers that absorb water have grown successfully into the soil of the planting bed, many plants, especially Mediterranean natives, require much less water. The kind of irrigation evident in Roman gardens can result in the salinization of the soil in desert locations with high evapotranspiration

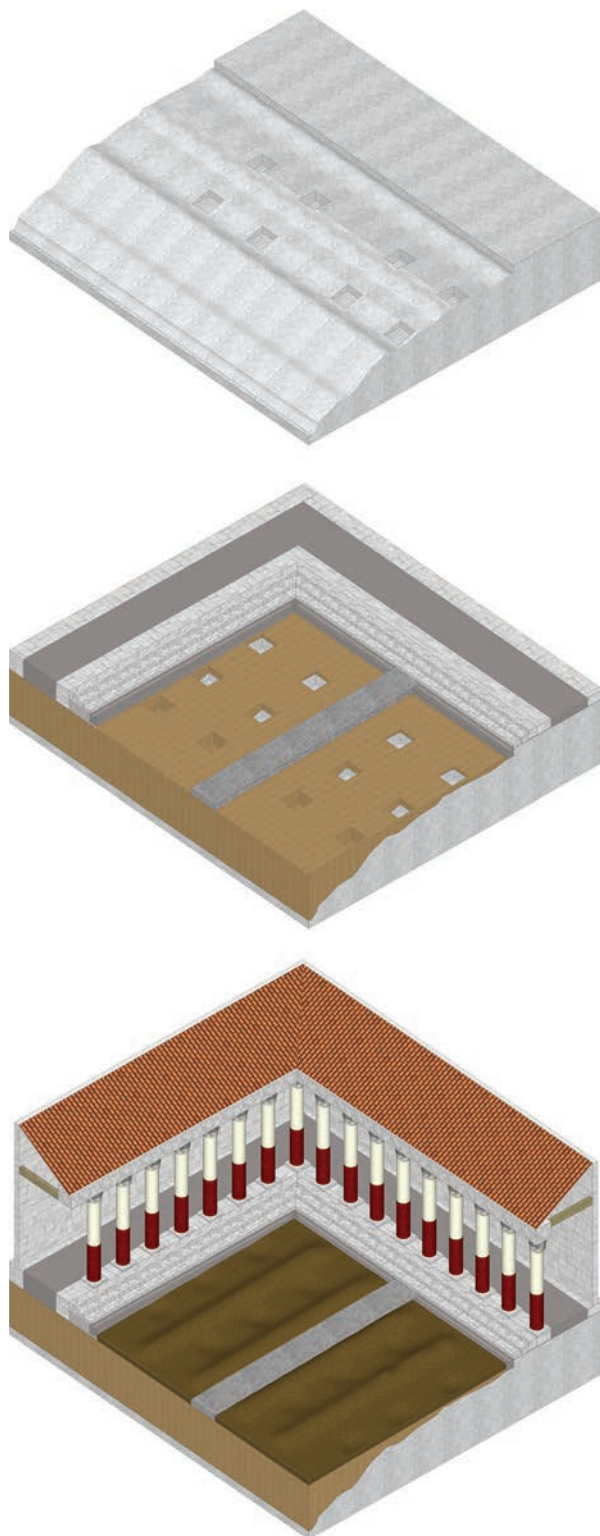


Figure 14.22 Levels of the garden, SketchUp model.

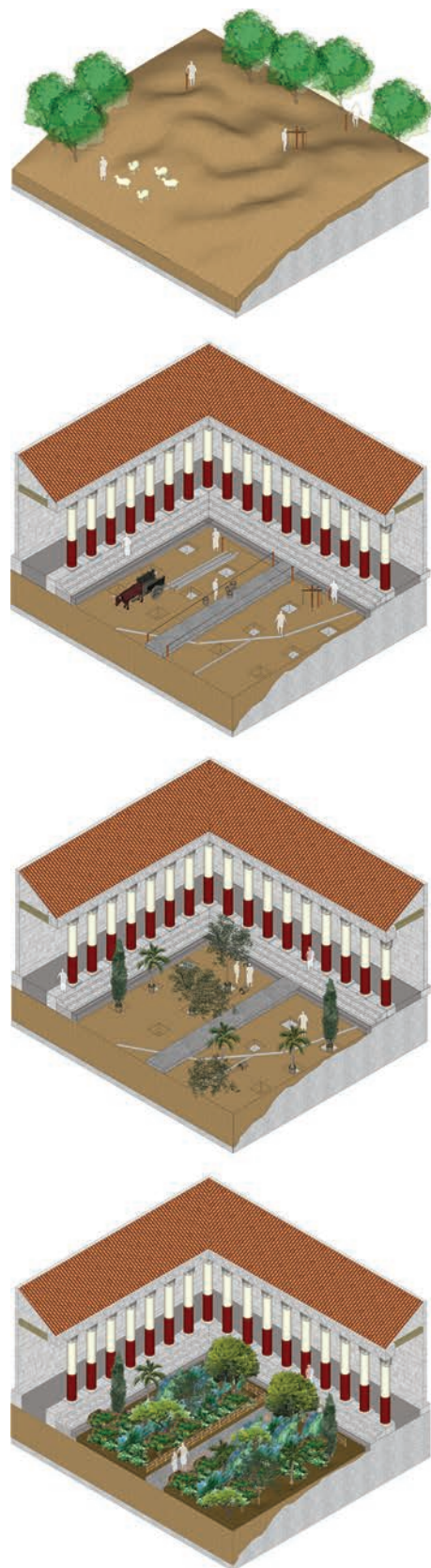


Figure 14.23 Hypothetical peristyle, all phases, SketchUp model.

rates. As a result, desert gardens feature palms and other salt-tolerant plants, as well as free draining soils. Exotic plants from different climates may continue to require special care. In some garden traditions, root-pruning methods are specially developed to allow plants to be moved, even frequently, and to thrive in contained spaces.

In sum, our hypothetical example of a small area of a peristyle garden can be seen as a series of levels (Figure 14.22), which were purposefully created to support their verdant appearance and to set the stage for the ongoing horticultural and cultural life of a garden (Figure 14.23). The point at which a garden's construction is completed is the beginning of another phase of its life. The overall design and structure of a garden, its "bones" as it is often described, are often stable for long periods of time, but the character of the planting will inevitably change. Although we tend to think of the garden as a collection of plants artfully arranged, a large-scale garden is a complex construction requiring many facets of planning and building, of which the plantings are only one.

Jansen's Chapter 15 that follows in this volume addresses water features and their plumbing, while the positioning of sculpture and other art in the garden and the staging of dining events so popular in Roman gardens are also rich topics for archaeological investigation. The plantings can be the aspect of the garden that gives the garden its most delightful, experiential quality, but they are also the most changeable because gardens are living ecological systems and as such are not static. Like the interior furnishings of a great villa, the plantings may be replaced but the structure remains, unless a major renovation occurs. Plant materials mature, decline, and are replaced. Areas that were once sunny become shaded as trees mature. Fashions may change as new plant materials are imported from exotic locations. The ongoing uses, cultivation, and maintenance of the garden greatly affect the character of the garden over time. Wilhelmina Jashemski's discussion in Chapter 16 describes the many actions required to continue the health and quality of the living system of the garden.

Chapter 15

WATER AND WATER TECHNOLOGY IN ROMAN GARDENS

Gemma C. M. Jansen

WATER IS OF vital importance to any garden; the available amount determines what can be planted and whether any water displays are possible.¹ It is remarkable, therefore, that although many aspects of Roman gardens have been studied, water has received little serious attention until now.² It has never been denied that water was an essential feature of the Roman garden and as such it has a place in all handbooks or surveys on ancient gardens; however, it is treated only in passing and not from the point of view of the water supply and drainage of the entire city.³ In these studies the garden seems like a small microcosm with no relationship to the surrounding landscape or city infrastructure. In fact, there is not much material available on this subject as research on water supply of cities is even more recent and in its infancy than the study of gardens. It is a happy coincidence when both have been studied.

At first glance, Xanten (Germany) appears to be a promising city for study because a large part has been excavated; however, a closer look reveals there is little known of its gardens and its water supply is not yet thoroughly researched. Likewise, the island town of Delos (Greece)⁴ ought to be a rewarding example, but it is doubtful if the many paved courts were gardens. The same is true for many other cities where some water research has been done, but the gardens have not been investigated, as for example Ephesus (Turkey) and to some extent Ostia, Rome's harbor city. The lack of research, therefore,

both on gardens and on water supply and drainage of Roman cities makes it, for the moment, impossible to give an overview of the water technology of gardens in the entire Roman Empire and to sort out regional differences. What can be found in this chapter is a first attempt to combine the study of water supply and gardens.

The five examples chosen show, by chance, some diversity in place and time. First to be discussed is the city of Pompeii (first century AD), the only town where the water supply and the gardens have been studied in detail. Then, we will review Ostia (fourth century AD), where the evidence is more limited and the subject less well studied, followed by Conimbriga (Portugal: first–second century AD) and Ampurias (Spain: first century BC–first century AD). The final example will be the water supply and gardens of the largest Imperial villa, Hadrian's near Tivoli (second century AD). The descriptions will be followed by conclusions.

For each site chosen answers to the following questions about water supply and drainage will be attempted:

- 1) What was the urban water context and how did water arrive in the garden?
- 2) How was the water distributed over the garden?
- 3) What was the function of water in the garden?
- 4) How was any surplus water drained from the gardens and subsequently from the city?

In short, water supply of the individual gardens of these sites will be examined from the broad perspective of the urban water and drainage infrastructure.

There are three topics that might be expected to have a place in this chapter but which will not be discussed. Latin texts referring to gardens, although they are interesting to read and provide useful information about the general Roman concept of water in the garden, are excluded, for several reasons. In addition to the fact that these texts have been given a full treatment in other places,⁵ a reason for not citing them is that texts can bias how we interpret archaeological remains – wanting to find what we read in the texts. Such an approach can be misleading because water in a garden in one location of the Roman Empire does not necessarily resemble its use in gardens in other parts of the empire, as suggested by differences in water supplies from town to town. To keep a clear and unbiased view, therefore, I will concentrate on the archaeological remains only.

A second item that will not be addressed is wall paintings as a source of information for the water supply and its use in a garden. Numerous types of statues were transformed into fountains but only two real types of fountains – urns and bowls, and water nymphs holding a shell in front of them – are represented in paintings.⁶ Furthermore, paintings of fountains are not realistic snapshots because they neither show how water was fed to a fountain (no pipes or taps are depicted), nor where the overflow went.⁷

A third subject, perhaps more surprising than the others, that will not be discussed is the gardens in Rome, despite Frontinus' essay devoted to the water supply of that city. There are scarcely any archaeological remains to confirm or to clarify such texts and it is not possible to reconstruct the system of water pipes in

the city based on archaeological remains because they are too few in number and too scattered. Likewise, the names and locations of many of the large gardens of Rome are known, for example, the gardens of Sallust, Lucullus,⁸ and Maecenas, but most, with the exception of the imperial gardens of the Palatine, are covered by modern buildings.⁹ These gardens, therefore, are not well enough known to be of use for a study of water supply and use.

POMPEII

It will not be surprising that Pompeii is the primary focus because there is no other city whose gardens we know better and whose water systems have been studied more.¹⁰ This does not mean, however, that Pompeii is a standard by which all other cities can be judged. On the contrary, as will become clear in this essay, Pompeii is, in fact, not necessarily representative of Roman towns and gardens.

In August AD 79 the eruption of the volcano Vesuvius covered the Roman town Pompeii under a thick layer of ash and pumice. 1,700 years later archaeologists rediscovered this city whose streets were still intact and houses were as inhabitants had left them on the day of their sudden departure. At the moment, this is the largest area with houses that has been excavated in the Roman Empire, and it is, therefore, not surprising that this is the foremost city in which to study Roman daily life.

Pompeii was built at the foot of Vesuvius on an old lava flow. The city terrain was therefore not a flat plateau but had a steep slope to the south. Although the oldest archaeological finds of this city date back to

the sixth and fifth centuries BC, we understand little about its early history. We do know that the Samnites lived there in the second century and that in 80 BC the town was made a colony, after the Roman general Sulla conquered it. From this time on the town became Romanized very rapidly and typical Roman buildings, such as the little theater, baths, and an amphitheater, appeared. In AD 62 one or more serious earthquakes struck and when the city was destroyed by the Vesuvian eruption seventeen years later many houses were still in ruins or in the middle of being rebuilt.

Traditional Water Supply

The water supply of Pompeii is well studied.¹¹ Traditionally, the Pompeians used two methods: collecting rainwater that fell on their roofs, and digging wells. As the groundwater level was as deep as 20 to 30 meters, wells were difficult to dig, especially because of the hard lava strata and soft pumice layers; the hard lava banks were difficult to penetrate and the soft layers were dangerous as they could easily collapse. Furthermore, it was a struggle to obtain from such depths a daily supply of water, whose qualities were not very high, but when such water was needed bucket chains could bring it to the surface. It is not surprising, given such difficulties and poor quality, that groundwater was used mainly for personal bathing, as well as the washing of fleece and dyeing of wool, both of which were prominent industries in Pompeii.

As Pompeians were not enthusiastic about groundwater for domestic use, they turned to the collection of rainwater from the roofs of their homes and the storing of

it in subterranean cisterns. Every house, or more accurately every court and garden, was equipped with provisions for catching rain. These were simple in design – varying slightly according to differences in courtyards – but appropriate for collecting and storing rainwater and keeping it cool, clear, and fresh.

In the *atrium*, rainwater was collected on the inward-sloping roof whose square opening, the *compluvium*, had waterspouts sometimes in the shapes of dogs, bears, or lions in order to direct rainwater into a basin (*impluvium*) situated below (Figures 15.1A; 15.1B). In the corners, where water flow was greatest, spouts were larger. As the rainwater falling into the *atrium impluvium* was polluted with dust and dirt from the roofs, particularly after long periods of drought, the first rainwater had to be discarded. For this purpose the *impluvium* had two drains: one led water to the street and the other to a subterranean cistern. The polluted water was led directly to the streets by closing the drain to the cistern. When the water became clear, the drain to the street was closed and water was allowed to enter the cistern. Although there must be hundreds of cisterns at Pompeii, only a few have been excavated fully enough to be useful in understanding their construction. They were dug in the porous ground, walled up, and lined with waterproof plaster – *opus signinum*. Water could be obtained from the cistern mouth, which was covered by a stone slab with a hole in the middle for lowering a bucket. To protect the cistern water against sunlight and dirt the hole was closed with a stone cover or decorative wellhead (*puteal*: Figure 15.2A). Rims of puteals show signs of wear caused by ropes sliding over them to lower and raise buckets for distribution of water throughout the



A

Figure 15.1A House of the Samnites, v.1, Herculaneum, waterspouts in operation.



B

Figure 15.1B House of the Mosaic Atrium, iv.1/2, Herculaneum, atrium with *compluvium* and *impluvium*.



A

Figure 15.2A House VII.8.4, Pompeii, *puteal*.



B

Figure 15.2B House of Menander, 1.10.4, Pompeii, peristyle with concave quarter circle in the corner.



C

Figure 15.2C House 1.7.18, Pompeii, rainwater collection system in lightwell, a terracotta pipe brings water to mini-*impluvium* with drain to street and drain to cistern.



D

Figure 15.2D House of Loreius Tibertinus, 11.2.2, Herculaneum, raised flower boxes around the *impluvium*.

house, particularly to where it was needed most – kitchens and gardens. As the annual rainfall in the surroundings of Pompeii at present is 900 to 1000 millimeters, water in antiquity also was likely not scarce, although it was not available all year round in equal quantities.¹² In particular, rainfall was minimal during the months of August and September so that cisterns needed to be large enough to cope with such shortages.¹³

Rainwater was collected somewhat differently in peristyles than in *atria*. Water, falling on portico roofs, was led to stone gutters and then into cisterns. In the

corners, where the jet of water from the roof was strongest, the gutters were provided with a concave quarter circle to prevent the falling water from eroding a hole in the garden soil (Figure 15.2B).¹⁴ Rainwater from the peristyle gutters could not be handled as in an *impluvium*, so that small settling boxes were used to clarify it. Perforated lead sheets fixed with iron nails in front of the cistern entrances prevented floating debris, such as twigs and leaves, from entering. Courts with single colonnades likewise gathered rainwater from a sloping roof into a gutter as in

peristyle courts. The design of peristyles worked well for gardens because it conveniently allowed for the gathering of substantial quantities of rainwater; water collected in surrounding gutters could be used easily for the irrigation of plantings in the courtyard.

In smaller courts, such as in kitchens or light wells, rainwater was led down from the roof through a terracotta or lead rain pipe into a small basin, with one drain to the street and one drain to a cistern: a kind of mini-*impluvium* (Figure 15.2C). The *atrium* and the small areas of the mini-*impluvia* were not usually planted but they could have had potted plants. Such pots, if they existed, must have been positioned not to block drains, and well away from downspouts. Raised flower boxes (planters) on a low wall around the *impluvium* were a very clever solution in, for example, the house of Loreius Tibertinus (11.2.2) in Pompeii¹⁵ (Figure 15.2D) or at the House of the Relief of Telephus (Ins. Orient. 1.2) in Herculaneum. Courts with a mini-*impluvium* were even more appropriate for potted plants as rainwater did not fall directly from the roof but was led down carefully through a pipe.

Toilets and Wastewater

Toilets have been found in large numbers built in or very near peristyles and backyard gardens, most taking the shape of a little house with roof and door (Figure 15.3A). Besides profiting from the available light and fresh air, toilets with cesspits could be emptied from the garden side, and it is possible that the contents could have been used as fertilizer (Figure 15.3B).¹⁶

As most liquid waste was discharged into the streets and toilets were connected to well-functioning cesspits, Pompeii had no need of a systematic sewer network. Thus sewer lines were used to solve specific problems, such as the carrying away of large amounts of wastewater from baths. Rainwater, not stored in cisterns, together with wastewater thus was led above ground along sloping streets (Figure 15.3C). An ingenious system of small elevations and dams directed this water where needed and prevented flooding of some streets. A computer model was developed to simulate this process and to estimate the amounts of rainwater that flowed through several streets.¹⁷ For example, during a normal rain more than 10 liters per second drained along the street south of the Via di Castricio and was used to water the small garden at 1.21.3, and the Garden of the Fugitives (1.21.1) that was farther to the south – a fair amount of additional water for these two gardens.¹⁸ House VIII.6.5, with help from a little channel passing under the sidewalk and the garden wall, received as much as 50 liters per second, which was collected in a garden basin.¹⁹ Discharging rainwater above ground rather than by means of sewers permitted these, and other, gardens to be not only relatively easily irrigated but also partially fertilized by animal feces from the streets.

Tap Water

Perhaps as early as 80 BC a long-distance pipeline led water from a spring in the mountains into Pompeii where it was divided among consumers through a sophisticated network of pipes.²⁰ Only the



A

Figure 15.3A House 1.8.13, Pompeii, toilet house with small window into the peristyle garden.



C

Figure 15.3C Via Stabiana, Pompeii, rainwater running in the street.



B

Figure 15.3B House of the Silver Wedding, v.2.i, Pompeii, toilet house seen from behind, with cess-pit opening in the garden.

last 90 meters of this pipeline have been excavated where it ended in the main distribution center, situated at the highest point in town. From there water was efficiently conducted in pressure pipelines, carrying the public inscription *Publ. Pomp*, to various districts in the town. Because of differences in elevations among parts of the town, the water pressure varied considerably. Especially in low areas that

were more than 35 meters below the main distribution center, the pressure must have been unacceptably strong, necessitating towers up to 6 meters high as minor distribution centers at street crossings. Indeed, the steepest street of the town, the Via Stabiana, had four such water towers (Figure 15.4). To achieve a reduction in pressure, the main water pipe was led in a groove up the side to a small and open



Figure 15.4 Via Stabiana, Pompeii, water tower.

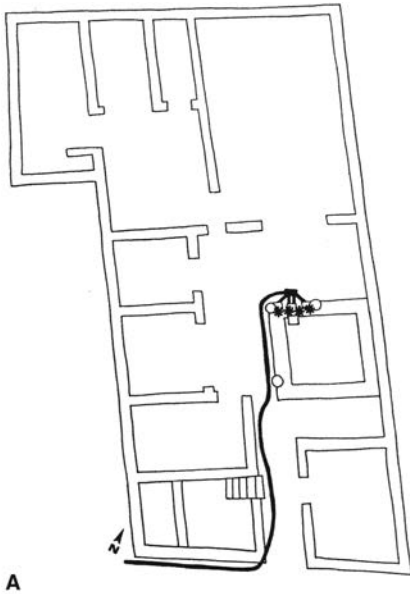


Figure 15.5A House of the Balcony, VII.12.28, Pompeii, plan with pipes and fountains indicated.

basin at the top of the tower from where smaller pipes, attached with lead strips and iron nails, distributed water directly to public fountains and baths, and to private homes and gardens.²¹



B

Figure 15.5B House of the Balcony, VII.12.28, Pompeii, lead distribution box with bronze taps.

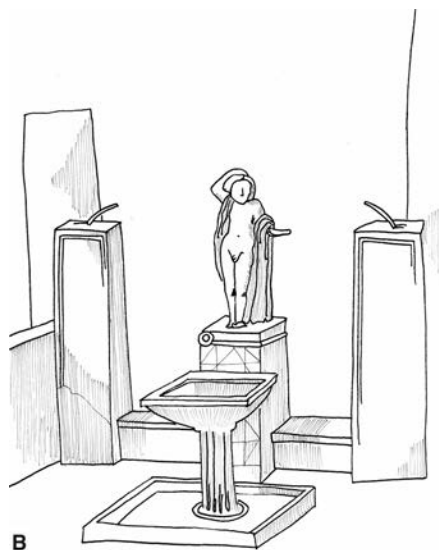
To demonstrate the layout of the water pipe system within houses and gardens, I have chosen two less well-known examples: the House of the Balcony (VII.12.28) and the House of the Ephebe (I.7.11). The House of the Balcony is in a rather ruinous state, but the lead pipes of its water system are well enough preserved to follow them



A

Figure 15.6A House of the Balcony, VII.12.28, Pompeii, fountain centerpiece.

from the public water tower at the street corner to the front door (Figure 15.5A).²² From there a pipe enters the house through the front corridor and runs straight to a small paved courtyard that is surrounded by a portico and visible through the front door. That the courtyard served as a garden can be inferred from two large planting pots that are still in place.²³ The pipe fed four fountains with the help of a lead distribution box and four taps, still connected to the fountains (Figure 15.5B). The centerpiece was a statue of a boy on a pedestal holding a shell from which water flowed into a marble basin (Figure 15.6A). Another pipe and tap of a second fountain



B

Figure 15.6B House of the Balcony, VII.12.28, Pompeii, fountain ensemble, reconstruction.



C

Figure 15.6C House of the Balcony, VII.12.28, Pompeii, pressure increasing pipes.

were connected at the pedestal to a bronze nozzle, from which water flowed through the mouth of a bronze head of Jupiter.²⁴ The remaining two fountains were simple undecorated half columns into which small pipes were inserted to increase the pressure (Figures 15.6B; 15.6C). Water from all four fountains fell onto the basin and the overflow was directed to the

cistern underneath the courtyard or was led into the street through a rainwater drain. Although this was a small garden with a simple water-piping system – lead pipes, a distribution box, taps, and different types of fountains – its sparkling waters, marble statue and revetment, potted plants, and perhaps shrubs or small trees must have looked elegant and inviting upon immediately entering the house.²⁵

A more complicated system is found in the House of the Ephebe, which had several gardens on different levels. Although not all elements have survived, a reconstruction of the system of pipes can be

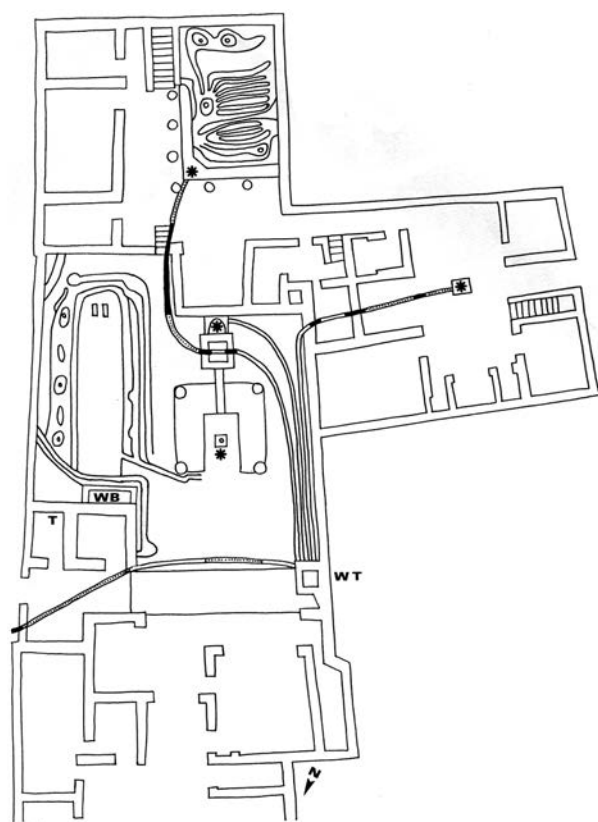


Figure 15.7 House of the Ephebe, 1.7.11, Pompeii, plan. On the plan, gardens and waters system indicated as follows: black line = water pipe in situ, dotted line = water pipe located with metal detector, open line = presumed water pipe or seen by the excavator, * = fountain, WT = water tower, WB = water basin, T = toilet.

attempted with the help of old excavation reports and a metal detector that located pipes still hidden under floors (Figure 15.7). From the water tower in the street a visible pipe enters the house just north of its entrance. From there it crossed beneath the floor of the vestibule toward a brick water tower in the northwest corner of the principal garden ("WT" on the plan). The tower, 3 meters high and well camouflaged by a large painting of Mars and Venus (Figure 15.8A), had at least three pipes leading from it along the west wall of the garden.²⁶ The middle pipe led south to a beautifully painted *nymphaeum* in which a small bronze statuette of Pomona holding a shell once occupied the niche and splashed water over steps and into a basin (Figure 15.9). The overflow from this basin led to a gutter around an outdoor *triclinium*, which had its own fountain in the middle of the couches. This water continued east to an area identified as an adjoining garden because of the presence of small herms (most of which have disappeared), a marble table and bench, and furrows containing the remains of small root cavities.²⁷ Additional water for gardening was stored in a basin of about 1 cubic meter in capacity at the north end of this adjoining garden ("WB" on the plan: Figure 15.8B).²⁸ The kitchen led its wastewater into this garden and it is tempting to suggest that the kitchen toilet ("T" on the plan: Figure 15.8C) had its cesspit opening there, as in other Pompeian gardens.

A second pipe went through the basin in front of the *nymphaeum*, then beside stairs leading down to the peristyle of the lower part of the house (Figure 15.8D) and finally ended at a tap above a *dolium* (Figure 15.10). The overflow might have



A

Figure 15.8A House of the Ephebe, 1.7.11, Pompeii, water tower



C

Figure 15.8C House of the Ephebe, 1.7.11, Pompeii, toilet in kitchen with window into the garden.



B

Figure 15.8B House of the Ephebe, 1.7.11, Pompeii, water basin in garden.



D

Figure 15.8D House of the Ephebe, 1.7.11, Pompeii, water pipe.

been channeled to a cistern nearby. The excavator found in this peristyle evidence for plantings, which must have been watered from this tap or *dolium*.

A third pipe descended from the earlier mentioned private water tower to a small light shaft, which was probably



Figure 15.9 House of the Ephebe, 1.7.11, Pompeii, nymphaeum and triclinium.



Figure 15.10 House of the Ephebe, 1.7.11, pipe with tap attached to column in the lower peristyle.

part of a small garden, as suggested by garden paintings and *opus signinum* plaster on the floor, an ideal place for plants in pots.²⁹ The pipe, however, seems not to have delivered water to this garden

(which must have been watered by hand) but instead went straight through the *tablinum* (where the floor was cut to receive it) to a fountain in the nearby small *impluvium*.

From the two houses discussed as well as other investigations during the last decades much has been learned about the water system at Pompeii.³⁰ The piping for private water began at nearby water towers in the streets and was formed from a sheet of rolled lead soldered together, creating an oval profile typical of the Roman period. These lead pipes were easy to bend, but heavy, so that only a few meters were continuous before connections had to be soldered together, causing a lump at the joints. From public water towers pipes ran underneath sidewalks to the entrances of houses where they penetrated outer walls and ran toward the nearest courtyard or garden. Inside the house this pipe was hidden under floors or else laid into open grooves cut into tufa *impluvia*, peristyle gutters, or *opus signinum* floors. In some instances, half round tiles covered the pipes to prevent damage or accidents.³¹

In courtyards, pipes supplied fountains by means of a distribution box and connecting taps, which could be hidden in marble cassettes closed with marble covers.³² The flow of water, therefore, was controlled at a central location in the courtyard rather than at the individual fountains.³³ From the distribution box all the fountain outlets were visible to permit the gardener to adjust the water appropriately – increasing supply to one fountain would diminish water to another. In most houses a branch of pipe continued through a corridor to another courtyard, where once again a central distribution box and taps fed fountains. The pipes rarely headed for kitchens and toilets.³⁴ A striking feature is the lack of a master valve, necessitating the need for each fountain to be closed independently when the entire system within the house needed to be shut off.

Three distinct fountain connections, combinations of which are found in Pompeian houses, distributed water in different forms. Pipes fitted to bronze nozzles in pedestals (Figure 15.11A) and in the middle of *impluvia* belong to fountains that spouted water into the air or directly into a basin. A second type of connection, usually built into rims of pools, had a lead pipe with multiple small lead jets, all of which could be closed or opened by one tap (Figure 15.11B). In *nymphaea* a third type of pipe ended in a groove from which water flowed down steps into a small pool. These different effects of water could only be achieved by regulating the pressure at the ends of a course of pipes. A spouting fountain could be created by increasing the water pressure with a smaller pipe attached to the normal sized pipe. These smaller pipes, sometimes made of simple rolled pieces of unsoldered lead (Figure 15.11C), rose along fountain statuettes and columns. In contrast, a babbling fountain needed less pressure so that larger pipes or pipes with wider mouths, as visible in many *nymphaea*, were employed.

From each of these various types of fountains water fell into a marble basin, an *impluvium*, or, as typical at Pompeii, a garden pool. From a technical point of view the shapes of these pools (round, rectangular, or a cross) are not of importance; the interesting feature is that they are quite deep and waterproof, lined with several layers of *opus signinum*, and have the typical Roman thick seam on the edges. Some of them are still covered with vivid blue paint. They all have a drain at the bottom for cleaning and a drain at a higher point to prevent the pool from flooding the garden. Because of the depth of these decorative pools they do not seem to have played a role in the irrigation of the garden for



Figure 15.11A Pompeii, storeroom excavation, fountain nozzles.



Figure 15.11C House of the Posthumi, VIII.4.4, Pompeii, small rolled pipe in column.



Figure 15.11B
House of Fabius
Rufus, VII.16.17-22,
Pompeii.

which ordinary water basins on walking level, as the one described for the House of the Ephebe, were used.³⁵

There is no doubt that with the arrival of a piped water system the appearance of Pompeian gardens changed. This water was, in contrast to rainwater, available in abundance and under pressure, making it possible to decorate gardens with fountains. But was this the only change, or did aqueduct water alter the layout of gardens and the kind of plants in them? Since not all houses were connected with the aqueduct, it would seem that this question could be answered by

comparing plantings in houses that had aqueduct water with the plantings in houses that did not. Such a comparison is difficult, however, because most houses in Pompeii were excavated before archaeologists were interested in soil contours, root cavities, or plant remains. The first thorough excavation of a peristyle garden, in the noble Samnite House of Polybius (IX.13.1-3), was completed by Jashemski in 1973, using techniques her team had developed for recovering evidence about ancient plantings.³⁶ Surprising discoveries in this peristyle were five large trees, two of which had been propped, a row of

smaller trees espaliered against the west wall (perhaps citron or lemon), as well as some smaller roots. A study of the root cavities, carbonized plant material, pollen, and other evidence indicated that there were probably two fig trees, an olive, and two other fruit trees, perhaps cherry, pear, or apple.

Different from the low formal plantings of several modern garden recreations in better-known houses at Pompeii, the garden in the House of Polybius raised questions concerning the planting of other peristyle gardens and the extent to which trees may have been used. A thorough search by Jashemski through all the excavation reports showed that root cavities had been reported in only nine gardens, three of which were not peristyle gardens, and tree root cavities were found in all but two.³⁷ It became important to investigate whether any information could be gleaned from previously excavated Pompeian gardens, where modern roots had not destroyed all the evidence of ancient roots. Of the seven gardens where Jashemski was able to find root cavities, five had trees, one was so damaged only a few small cavities were found, and one small garden (I.12.11) had a very formal design.³⁸ None of these houses except the House of the Silver Wedding was connected with the aqueduct, and the two large trees in the peristyle garden of this house may date from before the house had an aqueduct connection. Trees are logical plantings when water is not plentiful, as they require only a little when they are getting started, and this could be easily supplied by a cistern in the house or by a nearby street fountain.

In 1982 and 1983 Jashemski excavated the House of the Golden Bracelet (vi. Insula occid. 42), finding evidence of a beautiful

formal garden, with low plantings, which would have required considerable water. Indeed, the house was connected to the water mains. Recent investigations to determine the kinds of plantings in other houses connected with the aqueduct³⁹ have been limited by early excavation techniques and little interest in gardens, which did not take into account such issues. For example, excavation reports from the late eighteenth century for the House of the Vettii give little information about plantings, but the soil contours suggest that there was a formal garden. In the House of the Colored Capitals (vii.4.31/51), also connected with the aqueduct, bricks set on edge in the large peristyle indicated two formal planting beds. Preliminary conclusions suggest that trees were more likely planted in gardens not connected with the public water supply while low formal plantings, requiring more water, were in houses connected with the aqueduct.

But there were exceptions. The Superintendency has recently excavated the House of the Chaste Lovers (ix.12.6), in which six large juniper tree root cavities were found, as well as some formal plantings.⁴⁰ As the house was not connected to the tap water system, the owners decided that it was worth carrying the necessary water from elsewhere in order to enjoy low formal plantings. The small garden with formal design in House I.12.11, noted above, would likewise have needed some extra water, which could have been supplied by a cistern under the garden or the street fountain in front of the house. From these examples it is clear that houses without a connection to the mains could have formal gardens. Moreover, some of them even had water features such as ponds and pools.⁴¹ It is likely that after the introduction of the aqueduct, laying out formal gardens

with pools had become fashionable to such an extent that even houses not served with public water included them in their gardens.

Water, not surprisingly, was always at the heart of a Pompeian garden: cistern mouths opening in peristyles or back gardens; and water pipes leading to courtyards and gardens. With the introduction of a sophisticated tap system, water could be led to any garden in the house for the watering of plants and for the feeding of fountains. Pompeii allows the opportunity to study a variety of gardens that relied exclusively on rainwater as well as gardens that used tap water. Decorative water features may have appeared only after the introduction of the aqueduct, but even gardens that relied on rainwater could have had pools and ponds (although not fountains) in an attempt to keep up with the fashion of the day.

OSTIA

Ostia, after Pompeii and Herculaneum, is the best-preserved Roman town of Italy, with a large area having been excavated and studied. As the town was inhabited for more than nine centuries, the building history is complicated and difficult to reconstruct. Furthermore, only recently has the study of the water supply of this town begun,⁴² and E. J. Shephard and P. Olivanti have assembled the first catalog of Ostian gardens, which appears in Volume 2 of the present publication.

Ostia was a very old city situated on rather flat sand dunes in the middle of a swampy delta. It was founded as an army base (*castrum*) in the fourth century BC to protect the mouth of the Tiber River. Soon it became the major port town of Rome

and continued as such for many centuries, as attested by large storehouses and trading connections. During its heyday the population rose to 50,000, with many people living in small and large apartments in multistory buildings (*insulae*) built around courtyards. When, in the fourth century, harbor facilities were shifted to nearby Portus, Ostia became its supporting residential center. From the sixth century on, people started leaving the town and finally in the ninth century the place was deserted. The dense population during prosperous times had consequences for the layout of gardens as well as for the systems of water supply and drainage.

The high level of groundwater, 2 to 3 meters below the surface, made it easy to dig wells. This water was simple to obtain and of good quality, as indicated by Pliny the Younger, who explains that in the neighborhood of his villa near Ostia groundwater was clear and fresh.⁴³ Groundwater was not only used by private persons, but was also exploited for public use by the digging of large chambers in the subsoil. This water was lifted with wheels or chains to multistory reservoirs from where it could be distributed efficiently, primarily to public baths. The many wells dating from all periods of the city's existence show that the Ostian people took grateful advantage of the easy access to good-quality groundwater.

Besides groundwater there was an aqueduct that brought fresh supplies into the city. Near the city walls aqueduct water was discharged into an urban distribution center of which little remains. From there, water was transported through lead pipes, leading to large reservoirs built 2 to 3 meters above ground level (similar to those used for groundwater), from

which water could be easily distributed to its many consumers. The mains supplied *nymphaea* along the major street, the *decumanus maximus*, and fed the many basins and roofed street fountains in residential areas from which water could be collected. Not everybody, however, had to go to these public fountains, as attested by houses with their own connections to the system, feeding private *nymphaea* decorating the courtyards of larger houses and fountains in the courts of multistory buildings. Shops and workshops were also connected to the main water supply, as were public and private toilets. In these toilet rooms, washbasins, sponge basins, and a smaller gutter that ran in front of the seats were supplied (Figure 15.12A). In contrast with other cities, Ostians did not collect rainwater; any additional needs were supplied by the river Tiber or were bought from water sellers.

Because of the high level of groundwater, cesspits to collect excreta from toilets could not be used. An expensive sewer network had to be built and maintained through manholes, covered with white stone slabs, which gave access to this underground system (Figure 15.12B). Our investigation of the system indicates that great care was taken to discharge as much as possible through it; apart from accommodating wastewater, rain was directed to small sewer openings in the middle of streets.

Within this framework of water supply and drainage the gardens were laid out. Because there are few *atrium* or peristyle houses in Ostia, evidence of gardens has to be gleaned from other courtyards.⁴⁴ *Insulae* had small and large courts equipped with basins, some quite elaborate, from which water was drawn by the inhabitants. It is difficult, however, to know whether most

of these courtyards possessed gardens or were paved, but several houses of the fourth century had courtyards, likely with gardens, three examples of which will be discussed here.⁴⁵

The House of Amor and Psyche (1.16.5) is a fine example of how water supply and garden were arranged in a late Roman house in Ostia (Figure 15.12C).⁴⁶ At the back of a vast, presumably planted, courtyard a large wall *nymphaeum* was erected, where through small holes along the back, water flowed from a pipe and descended over steps into basins (Figure 15.12D). From spouts in the basins water escaped and drained to an unknown location. It is clear, however, that the toilet next to this *nymphaeum* used the overflow for flushing, as in several other houses in Ostia. This type of wall *nymphaeum*, in which water descends over steps, is typical for the fourth century at Ostia where, because of low pressure in the public system, only a few fountains actually spouted water into the air. Also typical for Ostia is the limited distribution of water within this house, which was fed only to the *nymphaeum* and to a very small niche fountain in the adjoining dining room. Unlike Pompeii, where taps and distribution boxes were needed to feed the many water points, there is no elaborate interior distribution system in Ostian houses.

Because the courtyard was found unpaved in the House of Fortuna Annonaria (v.2.8), it was reconstructed, perhaps reasonably, as a garden containing a statue (Hera or Demeter) and benches (Figure 15.13A).⁴⁷ Becatti, the excavator, reported a large water basin in the middle of the court but no traces can now be seen.⁴⁸ A prominent water feature is a well (with a beautiful Augustan wellhead, Figure 15.13B), which was repaired in the



A

Figure 15.12A Insula III.7.5, Ostia, toilet room with sponge basin, left.



C

Figure 15.12C House of Amor and Psyche, I.14.5, Ostia, courtyard with wall *nymphaeum*.



B

Figure 15.12B Sewer underneath the street of the Round Temple, Ostia.



D

Figure 15.12D House of Amor and Psyche, I.14.5, Ostia, detail of the *nymphaeum* pipeline.

fourth century, a flourishing period for this house. A pipe connected to the mains fed a *nymphaeum* in a dining room next to the courtyard.⁴⁹ Water from it overflowed into a low marble basin and from there, rather ingeniously, to a toilet at the back where it filled a sponge basin and flushed the toilet.

A more elaborate water distribution system, all within a central paved courtyard, was created for the House of the Fishes (IV.3.3).⁵⁰ A square water basin, decorated with a charming stepped-pyramid fountain, was placed in the center of the

courtyard (Figure 15.14). On a side wall was an *aedicula nymphaeum* (perhaps decorated with a statue) with a low basin in front similar to that in the House of Fortuna Annonaria. To this courtyard a third (semicircular) water basin and a small water reservoir were added. The latter was positioned more than 1 meter off the floor and could hold as much as 8.6 cubic meters of water. Here water could be stored, creating more pressure and aiding in the distribution of water to the fountains. Apart from this evidence, recent excavations have revealed beneath



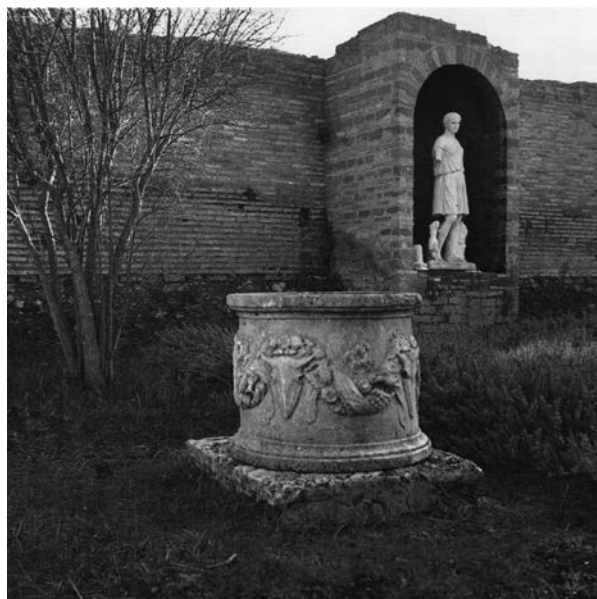
A
Figure 15.13A House of Fortuna Annonaria, v.2.8, Ostia, *nymphaeum* in dining hall. The door leading to the toilet is at the right.

a room of this house an earlier garden with a water basin.⁵¹

The study of the water supply of Ostia is still in its infancy but with the examples of fourth-century houses discussed above and from others under investigation a pattern emerges. Normally, only a single water feature (a fountain or *nymphaeum*) was served, eliminating the necessity of a complex distribution system. Furthermore, fountains were of the babbling type, requiring little water pressure, and pools were shallow, likely to avoid contact with the high water table. The overflow from fountains was stored in basins or else used for flushing nearby toilets. Continued research on the courtyards and gardens of Ostia will not only help to understand better the decorative uses of water in houses and gardens but also will further our knowledge about the irrigation and water systems of this city's gardens.

CONIMBRIGA

Conimbriga, situated on a relatively flat plateau bordered by two deep



B
Figure 15.13B House of Fortuna Annonaria, v.2.8, Ostia, garden with wellhead.

streams in the middle of modern Portugal, was an old settlement dating back to the tenth century BC. It had an orthogonal street plan before Roman times and in the Augustan period the city was laid out with typical characteristics of a Roman urban center: a forum, straight streets, baths, *insulae*, and several large houses, later remodeled in the second and third centuries AD. Because of its massive late Roman walls the city survived several attacks until AD 468 when it was conquered and destroyed by the Swabians. Nonetheless, the city remained inhabited until the sixth century.

For a city built for a strategic position the water supply was unusually excellent.⁵² An aqueduct, dating to Augustan times, carried water from a spring (still visible: Figure 15.15A) from about 3 kilometers away.⁵³ This water arrived at the highest point of the town to a building, perhaps a settling device or a distribution



Figure 15.14 House of Fishes, iv. iii.3, Ostia.

center, composed of two basins. From one basin water led underground to Augustan baths,⁵⁴ but precisely how water was distributed to other baths, street fountains, and private houses is not known. Inside some houses are lead water pipes (or ridges where they had been) and fountain jets, and the layout of the internal water distribution system of two houses has been published.⁵⁵ In most of the houses water was carried to many points, but no distribution devices, such as lead cassettes and stopcocks (such as from Pompeii), have been found. It appears that this water was exclusively for fountains because it seems not to have been stored for other uses such as cooking and drinking.⁵⁶ Overflow of the pool in two houses did lead into the toilet to flush the gutter underneath the seats; public sewers have been found in abundance, but they have not been studied. In several public buildings cisterns were used to store water from either the aqueduct or else from rainfall. If they stored rainwater, such cisterns must have been

the only dependable sources of water after the aqueduct was destroyed in the fifth century.

The gardens of Conimbriga, small lakes with islands of plants, are fine examples of the ornamental uses of water and plantings. The architecture of the gardens of the four largest houses is well described by Alarcão and Etienne;⁵⁷ however, no scientific study has been carried out on the soil or the remains of plantings. These gardens, enclosed by porticoes, were filled with pools into which planting beds were placed. It is apparent that water was available in abundance and had enough pressure for spouting fountains and water jets. Most pools contain a single fountain in the middle, although multi-jet fountains are known. For example, in the main peristyle of the so-called House of the Fountains, more than four hundred jets sprayed water (Figure 15.15B).

The House of Cantaber may not have had as many fountains (only 13) as the House of the Fountains, but it had the

Figure 15.15A Spring, Conimbriga.



A

Figure 15.15B House of the Fountains, Conimbriga.



B

greatest number of garden areas of any house in Conimbriga (Figure 15.16).⁵⁸ The inner distribution system of the piping in this house resembles the Pompeian principle: water led to a courtyard where it was directed to several fountains and

from here to another courtyard. Although it is not known where the water entered the house, it seems likely that the nine fountains of the main peristyle were the first to be supplied (Figure 15.17). From this peristyle a branch continued

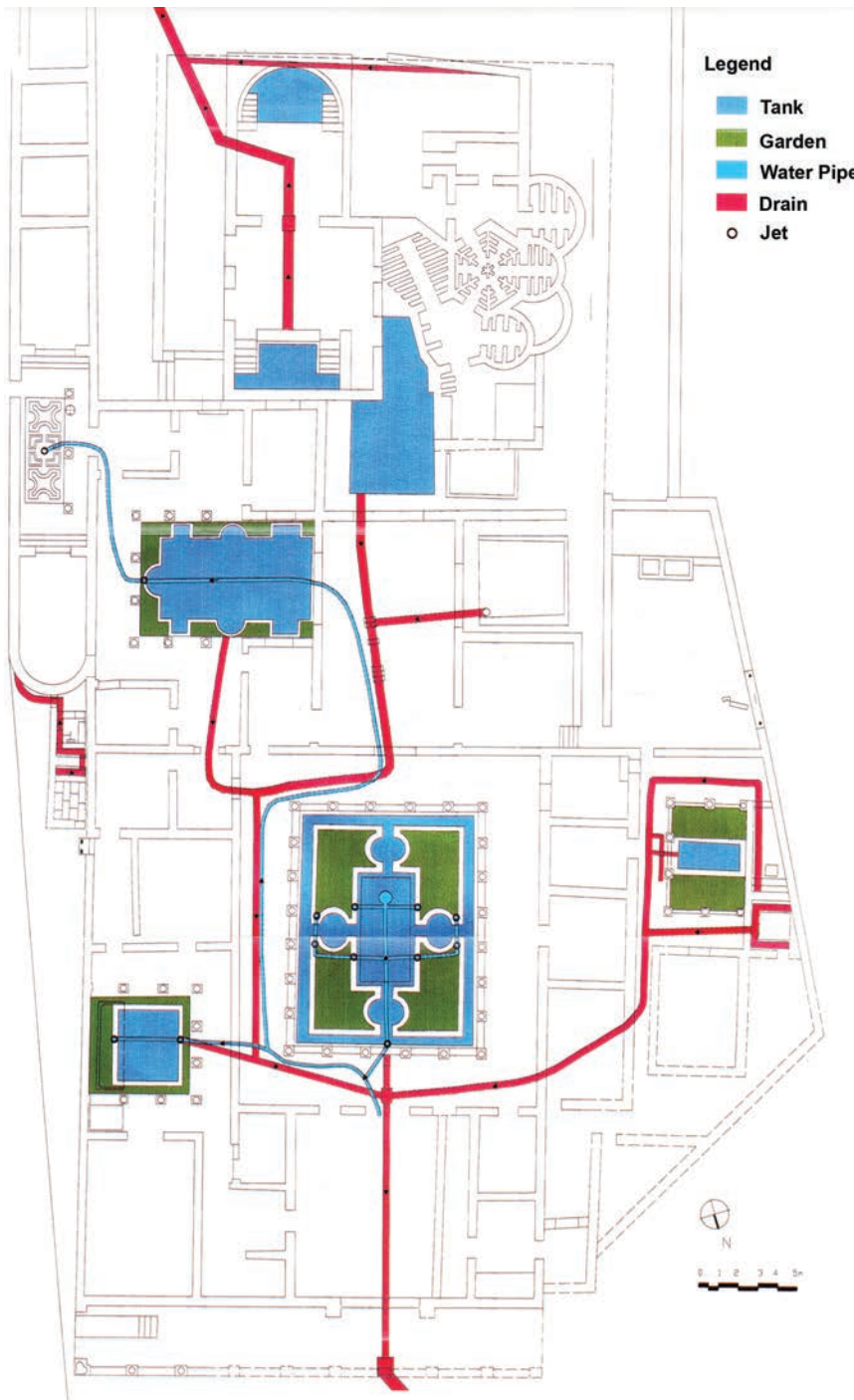


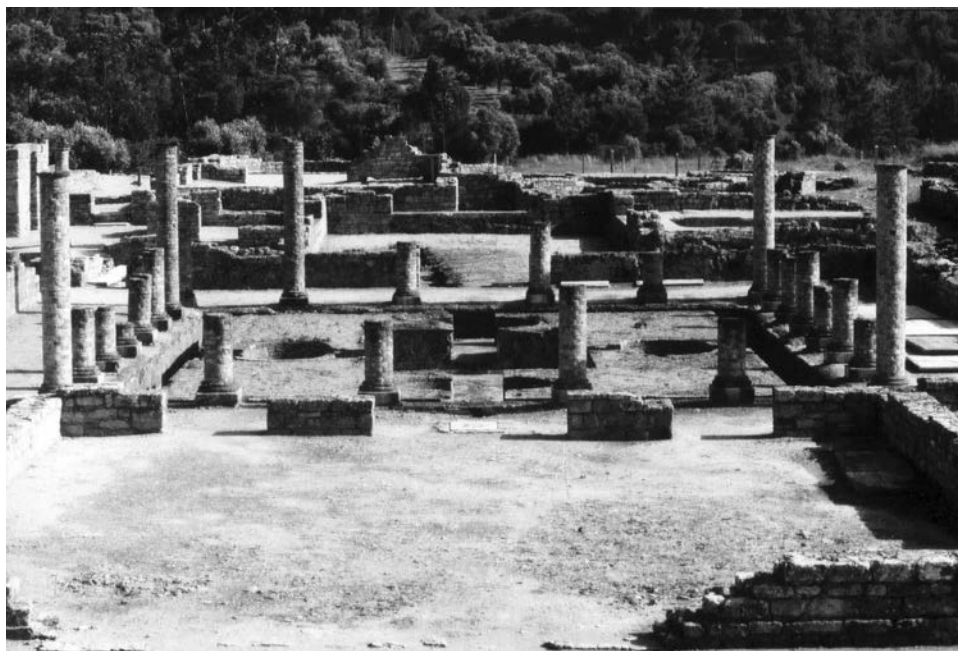
Figure 15.16 House of Cantaber, Conimbriga, plan with water pipes, fountains and drains

to fountains in a smaller peristyle to the east; another branch went south to feed fountains of two other gardens. Only one garden was without a piped water system (at the west); the pool in it, therefore, must have been filled by hand, as

were other pools, without gardens, at the south.

Although we know much about the architecture of the gardens of Conimbriga, we know nothing about the irrigation system or about the type of plants that grew

Figure 15.17 House of Cantaber, Conimbriga.



there. Water was such a prominent presence in these gardens, due not so much to the pools but more to the large number of fountain jets, that we might call them water gardens rather than planted gardens, since in their luxurious use of water they resemble the gardens of Hadrian's Villa.

AMPURIAS

Not every Roman town had an aqueduct and running water. The question, therefore, is: how were gardens in places, such as at Ampurias, at the northeast coast of Spain, planted and maintained? Although not much of this Roman town has been excavated, the water supply has been well studied; its gardens, on the other hand, have not.⁵⁹

The Greek and Roman cities of Ampurias are distinct, with the Roman remains lying contiguous to and farther inland from the original Greek settlement. The Greek city, which has been carefully

excavated, reached its maximum size (3 hectares) by the end of the fifth century BC. Most of the remains, however, date from after the second Punic war (ca. 200 BC) when the Romans built an important *praesidium* to control the Greek city and its harbor; by the end of the first century a Roman plan was laid out over this fortification. The Roman city, some 20 hectares, is only partially excavated: a large forum; some streets; one *insula* with *tabernae*; and two large houses with enormous peristyles and gardens.

Neither the Greek nor the Roman city had an aqueduct, relying mainly on rainwater stored in many cisterns. The current annual amount of rain is 597 millimeters (half that of Pompeii), most of it falling in winter.⁶⁰ In total, 67 cisterns have been discovered, 42 in the Greek city (Figure 15.18A) and 25 in the Roman (Figure 15.18B).⁶¹ Only twelve (all Greek) had a public function; the remainder are located in houses: for example, the Roman *insula* had six cisterns and the two



Figure 15.18A Greek cistern, Ampurias.



Figure 15.18B Roman cistern, Ampurias.

excavated Roman houses together have 13.⁶² House 1 alone possesses 9 examples with a total capacity of 349.3 cubic meters, which implies an average capacity of 38.8 cubic meters. The smallest cistern is 13 cubic meters, the largest 66.5 cubic

meters.⁶³ Water was collected primarily from roofs, directing it to an *impluvium* or leading it directly to underground cisterns (Figure 15.19A). Wells did not play a vital role in the water supply – 8 (only 8 to 10 meters deep) have been discovered in the Greek city.⁶⁴ It is likely, being so close to the sea, that groundwater was brackish and on the whole not considered good enough to engage in the digging of wells, which must have been undertaken only where much water was required. A deep well (more than 14 meters), larger than any in the Greek city, has been found recently in the Roman city associated, not surprisingly, with public baths.⁶⁵

Because Ampurias was stripped after its decline (most of the marble decorations and building materials were carted away), reconstructing the plans of gardens and their plantings is difficult. Complicating matters are the poorly documented excavations of the 1950s that paid little or no attention to ancient flora. Although the only excavated garden elements are small pools, modern gardens have been planted, without any archaeological evidence at the sites (Figure 15.19B). Yet, even in a town without an aqueduct, large gardens likely



Figure 15.19A House 1, Ampurias, large *impluvium* with two cistern openings.



B

Figure 15.19B House 1, Ampurias, pool in reconstructed garden.

were planted in spite of the necessity of maintaining them with enough water. Although labor intensive and unpredictable, the collection of enough rainwater to irrigate gardens and even to fill pools was accomplished by the inhabitants of Ampurias.

HADRIAN'S VILLA NEAR TIVOLI

The most interesting and rewarding place to study gardens in relation to water supply and drainage ought to be imperial palaces, where the best workmen were available, and money and space almost unlimited. Hadrian's Villa near Tivoli must have had among the most luxurious gardens, and the most sophisticated hydro-techniques; yet, neither is well preserved because the grounds of the ancient villa have been plowed and tilled for ages, and have been planted later with vineyards, olive groves, and romantic cypress alleys, disrupting or obliterating the ancient levels.⁶⁶ Furthermore, possible remnants of waterworks, such as fountain

statues, marble revetments, and basins, have disappeared, and lead pipes robbed, during the past centuries.

The villa that Hadrian began to build soon after becoming emperor in AD 117 is situated on a vast sloping terrain of tuff nearly 3 kilometers long. On several terraces buildings were constructed amidst vast garden spaces, acting as connectors among the various parts of the built palace. Windows and doors gave views onto these gardens and the many water displays within them.

Only during the last two decades have excavations been undertaken specifically to study the gardens of this villa. Conducted by Jashemski and Salza Prina Ricotti, these archaeological campaigns uncovered evidence of plantings in the Water Court (Figure 15.20), the Ceremonial Precinct, and the Canopus (Figure 15.21).⁶⁷ Hoffman found evidence of a garden in the Stadium, and Reggiani in the Centrale Vestibule.⁶⁸ Where volcanic tuff lay close to the surface gardeners were forced to cut trenches and holes (sometimes enhanced by low walls) directly into the rock, leaving convincing evidence for the layout of the gardens.⁶⁹ Fertile soil (with the addition of ash at the Canopus⁷⁰) was laid up to 1 meter thick over the tuff surface, creating planting beds with very good water-holding capacity.⁷¹ Planting pots and irrigation channels lend further evidence of plantings and techniques for watering.⁷² Apart from excavations, it is possible to identify where gardens must have been, particularly the ninety unpaved courtyards, which show typical garden features such as fountains and water pools.⁷³ Furthermore, Foss and colleagues, studying metal contents in the subsoil, have proposed that areas with



Figure 15.20 Water Court, Hadrian's Villa, Tivoli.



Figure 15.21
Canopus, Hadrian's Villa, Tivoli.
Garden excavated by Jashemski and Salza Prina Ricotti is at right.

high lead contamination are indications of putative lead pipes used for irrigation of plants.⁷⁴

Water played a vital role not only for the sustenance of plants, but also for the visual enhancement of the architecture. Salza Prina Ricotti described

evocatively the ambience: "So the villa is filled not only with green, but it shines, due to monumental fountains, small elegant fountains, cascades, *nymphaea*, large and small canals, wide basins, geometric lakes, pleasant to admire in the summer heat, while at the same time a small gust

Figure 15.22 Spring,
Hadrian's Villa,
Tivoli.



of wind ruffles the water surface and the constant movement of water that streams through *euripi* divides and lightens the area, and the gardens, as beautiful as they are, become magic: water is the secret of Hadrian's villa."⁷⁵ To create such environments, much water had to be delivered to many points; MacDonald and Pinto count more than one hundred.⁷⁶ A large-scale research project has been recently begun to study the water supply and drainage of the villa.⁷⁷

The only spring at the site (Figure 15.22) was probably not able to deliver the large quantities of water needed at the villa (including the three large baths) and therefore the hypothesis that the emperor tapped public aqueducts leading to Rome, which passed near his villa, seems reasonable.⁷⁸ Because the terrain has a natural slope from south to north it was relatively easy to deliver water via gravity across most of the villa. Water tanks for storage and dispersal of water to garden areas have been identified. It is clear that lead

pipes delivered water to discrete parts of the villa. Although not a single pipe has been found *in situ*, their positions are clear from imprints in floors, and ledges in walls where they have been removed (Figure 15.23A). The supplying of such large quantities of water implies an equally massive drainage system; sewers must have been gigantic, although at present they have not been found.

The fruitful collaboration between gardens and water is clear in numerous places in this villa, such as the beautiful U-shaped gardens of the Stadium (Figure 15.23B) and at the Residence Fountains (Figure 15.23C); in both, water cascaded down stairs and flowed between rows of planting beds. In the garden of the Water Court (among the most thoroughly studied to date) the dining area at the east consisted of numerous rooms and many water displays;⁷⁹ fountain basins, *nymphaea*, and even toilets were connected directly to the water-pipe system.⁸⁰ In the middle of this complex, surrounded by



A

Figure 15.23A Fountain with marble and pipes removed, Hadrian's Villa, Tivoli.



B

Figure 15.23B Stadium Garden, Hadrian's Villa, Tivoli.



C

Figure 15.23C Residence Fountains, Hadrian's Villa, Tivoli.

a portico, was a vast garden area containing a long shallow marble pool (a *euripus*) in the center, flanked by large planting beds. Jashemski and Salza Prina Riccoti discovered large planting holes dug into the tuff and at the outer edges intriguing irrigation and drainage systems.⁸¹ Overflow from five *nymphaea* around dining halls at the south filled the *euripus* as well as the irrigation channels. As the garden was laid out on a west-east-sloping tuff plateau, the western channel was able, via gravity, to flood the planting beds and pits in the western part of the garden; in the eastern part, the garden was irrigated by hand from the irrigation channel. Large plantings on the sides (determined by large planting holes), lower plantings in the middle, and a shining *euripus* must have made a splendid sight.

From the perspective of the different spaces at Hadrian's Villa it appears to have been conceived as a vast garden within which buildings were arranged. As such, consistent distribution of water was absolutely necessary to maintain the extensive gardens, fountains, pavilions, and baths of this luxury villa. Although a precise mapping of the water flow throughout this estate is not complete, it is clear that it must have been among the most elaborate and sophisticated water systems of any villa in the Roman Empire.

CONCLUSIONS

It is obvious that the amount of information varies: evidence from Pompeii is abundant; evidence from other sites is minimal. General conclusions, therefore, are difficult to reach, although it is clear that both rainwater and tap water were

utilized. The quantity of rainwater, stored in underground cisterns, was dependent on the weather and time of year (ironically less in summer when most needed) and was inconvenient for efficient distribution, having to be carried by hand. It seems that groundwater was an option only where the water table was shallow enough to make it relatively easy to reach. Tap water, delivered by aqueducts, was more consistent and abundant than rainwater and could be distributed through pipes to where it was needed. Furthermore, pipes could have enough pressure to feed fountains with at least small jets of water.

In the five sites discussed the water supply was taken care of in different ways. Pompeii had a variety of water sources: some wells; many rainwater cisterns; and many houses connected to the tap water supply. Table 15.1 details the distribution of water supply methods discussed throughout the essay. Ostia, on the other hand, had no rainwater cisterns, but wells were important and had, just as Pompeii, many houses connected to a piped water supply. Conimbriga relied completely on tap water (no wells, no cisterns); the inhabitants of Ampurias had only cisterns at their disposal (no aqueduct and its wells were unusable). Finally, at Hadrian's Villa, only large quantities of aqueduct water were used.

Table 15.1 Distribution of water supply methods in towns discussed in the chapter.

	wells	rainwater	aqueduct
Pompeii	+	++	+
Ostia	++	-	+
Conimbriga	-	-	+
Ampurias	+	++	-
Hadrian's Villa	-	-	++

Technology differed among these sites, but Ostia stands out as exceptional. Here, fountains were only of the babbling type and of the *nymphaeum* wall, rather than jets, because of the low pressure of the system. While the other cities had pools dug in the garden soil, Ostia had above-ground basins, most of them in paved courts. Elsewhere water was diverted to many places in the garden with special kinds of devices; Ostian houses did not typically have multiple locations for watering (usually only one) and therefore did not need intricate methods for distributing water.

From this discussion it is clear there was not a single Roman water system, but that several different solutions were developed. Factors underlying specific choices for certain combinations of provisions are, among others: the structure of the subsoil; the depth of the groundwater table and the quality of this water; the slope of the terrain; the rate of flow of the spring to which the water-pipe systems were connected; and the density of population.⁸² The water supply was thus the framework within which gardens were designed. The amount and the method of distribution of water were dictated by specific environmental, topographical, and geographical influences, within which the garden owner had to work.

Although water supplies varied, gardens from different locations show, not surprisingly, some similarities: plantings, statues, pools, and sometimes fountains (where piped water was available). Likewise, water was used for similar purposes regardless of location: (a) gardens needed different quantities of water, depending on the kinds and amounts of plantings; but it is not clear that abundance of water resulted in more elaborate

gardens. For example, at Pompeii tap water was not necessarily needed for the watering of gardens; the owners of the two small formal gardens discussed above succeeded in finding necessary supplies without relying on the aqueduct system; (b) water for decoration did not necessitate having a connection to piped water, as the many garden pools of Ampurias reveal, but such a system did make it more convenient, as can be seen from the small gardens of Pompeii, the courtyard gardens of Ostia, the luxurious gardens of Conimbriga, and the greatest of all, the lavish gardens of Hadrian's Villa. At the four sites discussed with a connection to aqueduct water, running water and fountains became an essential and vivid part of the garden; (c) the play and movement of water, especially in the gardens of Conimbriga and Hadrian's Villa, where large amounts of water were involved, must have had a cooling effect, a welcome respite from hot Mediterranean summers.

The combination of gardens and toilets is only at Pompeii, where toilets discharged into cesspits, rather than, as in other locations, into sewers.⁸³ Indeed, the general discharge of water from gardens is not well studied. At first glance it may appear that all water distributed to a garden would be used, but measures had to be taken to prevent flooding, especially during heavy rains. Furthermore, the overflow from fountains had to be controlled; at Pompeii this was either stored in a cistern or led to the streets. At Ostia and Conimbriga the surplus was led to the sewers, sometimes after first flushing a toilet. How overflow was handled at Hadrian's Villa is not yet known. For a city like Pompeii, gardens,

which occupied 17.7 percent of the terrain, soaked up much rainwater and greatly reduced the amount of wastewater along streets and in sewers.⁸⁴

The different uses of water lent a variety of ambiances to gardens. At Pompeii many freestanding spouting fountains were placed throughout the garden with relatively small catch basins, sometimes with a pool or small *nymphaeum* added. At Ostia we encountered courtyards with only one water feature, generally a wall *nymphaeum* and large catch basins. The mood of these two garden types must have been quite different: the gardens of Pompeii were full of spouting water jets, whereas in Ostia the view was a wall of water. The gardens of Conimbriga resemble the ones of Pompeii as they have many fountains, although the large number of small combined pools is an unknown element in the Pompeian garden. In contrast, at Ampurias gardens had only still pools. The gardens of Hadrian's Villa possess all the elements of these other gardens, but larger (there was unlimited water), more sumptuous (money was no problem), and in unorthodox combinations.

This essay is an introduction to investigating gardens throughout the empire from the perspective of the water infrastructure and the larger landscapes of which they are a part. The conclusions offered, therefore, are only tentative and must be supplemented by more examples. Regional differences, however, are clear and will become even more obvious only after further study is undertaken and a more conscientious attitude toward water distribution is expressed among excavators of ancient houses and communities.

Chapter 16

GARDENING PRACTICES AND TECHNIQUES

Wilhelmina F. Jashemski

FOR THE ROMANS, the agricultural calendar was marked by the seasons for preparation of the soil, planting, cultivation, harvest, and marketing, each of which had its characteristic operations. For each of these, we examine the archaeological evidence and the slight literary evidence for the various agricultural practices and cultivation techniques used in gardens in Italy and around the empire.

PREPARING THE GROUND AND SOILS

The soil of the Vesuvian area needs very little attention from gardeners and farmers to cultivate the finest gardens and produce.¹ This was also the case in antiquity, as noted by Strabo who reported that Campania produced as many as four crops a year thanks to Vesuvius.² This volcanic soil contains quantities of minute pieces of pumice that, because of their porous nature, are able to retain large amounts of moisture and thus make water available to plants.³ A scanning electron microscope photo of a particle of this pumice magnified 240 times shows vividly the many little pockets in which water was stored (Figure 16.1). Volcanic soil could be so rich that fertilizers were unnecessary in the region of Vesuvius and at the ancient Villa Santa Maria by Lake Nemi, a volcanic caldera;⁴ however, in other locations soils needed enrichment.



Figure 16.1 Fragment of pumice, scanning electron microscope photo.

The Romans efficiently collected fertilizers from kitchen waste, hearths, and cooking areas, garbage, broken potsherds, food debris, and dung from barns and stables. They burned clippings from garden maintenance.⁵ Theophrastus mentions the use of human waste for fertilization,⁶ and Columella urges gardeners to place on newly fallowed ground “whatever stuff the privy vomits from its filthy sewers.”⁷ Indeed, this waste, collected into large piles, was considered valuable enough to be subject to litigation.⁸

Other amendments included lime or shells to counter heavy clay conditions and other appropriate additives to adjust the acidity or alkalinity of the soils and provide aeration.⁹ Worn debris, mixed into a layer of earth of a peristyle court or field area, indicates the original processes of accumulation of fertilizer and of tilling, weeding, and cultivation of the soil after it was worked into the earth. Typical components include carbonized charcoal and seeds, bone, eggshell, sherds, and other small artifacts. For the excavator, these components of fertilizer are the signature of garden soils.¹⁰

Fertilizer, made visible by worn sherds and bits of debris deposited in waste heaps along with organic materials, is

increasingly recognized in garden excavations in the provinces. A mosaic from Saint-Germain-en-Gaul shows laborers carrying manure out to the fields on a palette.¹¹ For example, John Foss and other soil scientists have identified components of fertilizer in the garden soils of Herod’s palaces in Judaea and in the gardens of Petra.¹² At Frocester Court, in the planting beds of the courtyard, “potsherds, broken bones, jewelry and even hairpins” were noted.¹³ At our work at Thurburbo Maius, the gardens there, too, showed evidence of bits of potsherds, charcoal, and other amendments.¹⁴ A lease document from 178 BC about the temple estate of Zeus Temenites on the island of Amorgos states that one of the contractual obligations of the lessee was to provide manure for orchards.¹⁵

SOIL IMPORTATION AND ROOF GARDENS

The discovery of an area where the original fill of a terrace or ground surface has been dug out to some depth and replaced with fertile topsoil is good evidence that the site had been prepared for a garden. For example, in the House of the Greek Epigrams (V.1.18.11–12), Pompeii, soil had been brought in and deposited in a series of small pits to support young plants.¹⁶ Similarly, in a beautiful garden of the villa Deitikon near Zurich large planting trenches made in the rubble that covered the site must have been filled with planting soil to accommodate vines.¹⁷ The fill of the courtyard at the Roman villa at Fishborne in England, created with subsoil unsuitable for cultivation, made visible vivid patterns of imported dark organic soil of ornamental planting beds along

the central walk.¹⁸ In small peristyles, such imported garden soils may cover the entire surface rather than discrete beds, as in Herod's third palace at Jericho.¹⁹

Perhaps the most extreme form of soil importation is to be found in so-called hanging gardens. Skillful Roman architects and engineers were able to construct vaults strong enough to support large quantities of garden soil not only for plants but also for pools and statues. Such raised platforms may be called "roof gardens" from which spectacular views could be achieved, such as those in the hilly areas of Italy that offered beautiful views across rivers, lakes, and sea or of mountains and valleys. But, they also appear in urban environments such as at Pompeii on the east side of Insula VII and Insula VI occidentalis and the south side of Insula VIII and at Rome, for example, in Tiberius' palace on the Palatine.²⁰

Roof gardens are also found throughout the Roman Empire, such as one in the late Roman *praetorium* at Caesarea.²¹ Pliny suggests that the recently imported tuber and jujube, small fruit-bearing trees, were suitable for such gardens, but larger trees could also have been planted, such as cypress.²² Seneca the Elder lists roof gardens as an example of the decadence of Roman society in his day.²³ Seneca the Younger later supported his father's views by mentioning Romans possessing "waving forests" upon their roofs as examples of those living "contrary to Nature."²⁴

PLANTING PITS

Pits cut directly into bedrock were partially filled with fertile soil and used as receptacles for planting pots around the

temple of Hephaestus, above the Athenian agora.²⁵ Also in Greece, in the temple garden at Nemea trees were planted in large pits dug into the rock and filled with fertile soil. Similarly, a Roman garden around the temple at Gabii was made possible by cutting a large number of pits into the bedrock.²⁶ Hadrian employed the same method to provide a hospitable area for plantings in the garden of the Piazza d'Oro in his villa at Tivoli, where sloping terrain with an insufficient soil covering for plants made it necessary to cut planting pits in the tufa and fill them with fertile soil. Also at this villa, pits cut into tufa show where plantings were placed for the tomb garden of Antinous.²⁷ Elsewhere in the empire, such as in the villa Deitikon, near Zurich, planting pits in the center of the garden must have been for trees or shrubs.²⁸

CONTOURING THE GARDEN SURFACE

Soil contours, visible primarily from the surface, are layers of earth whose configurations may be indications of features such as raised garden beds, compacted walks, and water channels. The eruption of Mt. Vesuvius created conditions in which surfaces were preserved to a degree rarely found on garden sites elsewhere. Nevertheless, identification of soil contours was of little concern to early archaeologists and, therefore, they were not recorded. The many configurations that now have been identified in the peristyles of Vesuvian houses and villas show the variety of ornamental designs of these gardens. For example, the unique soil contours in the Garden of Hercules



Figure 16.2 Garden of the Fugitives, Pompeii, aerial balloon photo, Jashemski 1979.

(11.8.6: Figure 4.18) made it possible to determine that this was a commercial flower garden.²⁹

Contours distributed water from rainfall and irrigation. An examination of the soil contours of two gardens shows clearly how the Pompeian gardener patiently worked the soil, closing a bed here and opening a channel elsewhere, as is still the practice today. We found the large

Garden of the Fugitives (1.21.2) had been planted in east-west rows approximately 1.5 meters apart, the rows being divided by distinct channels that served both as paths for the workmen and as irrigation channels. The garden was divided lengthwise north to south by a deeper channel (Figure 16.2) that began in an area between two houses at the north end of the *insula*. This smaller garden was lower than the street, allowing rainwater to empty into it through a tile-lined opening built in the wall to the east of the top step. There, the water divided and flowed around a U-shaped bank of soil, some following along a little channel in the west bank, some being directed between the east bank of soil and a wall.

During a heavy downpour, which Pompeii frequently experiences during the rainy season from September to March, water would overflow from the channel on the west bank and spread into the west part of the small garden, or it could also be directed to flow down a channel or passageway enclosed by the U-shaped bank of soil and spread into the south part of the garden.³⁰ A second source of water was at the south end of the garden where rainwater from the roof of an adjacent house was directed into a dolium embedded into the ground, the overflow being channeled into the south part of the garden, which had rectangular beds separated by water channels. Water from both sources flowed in these channels and then emptied from the small garden through a hole at the base of the rear wall into the Garden of the Fugitives, where it flowed down the water channel that extended the length of the garden. From here it was led into the irrigation channels that separated the rows.³¹

The conditions that preserved the ancient soil contours in the Vesuvian region are rarely found elsewhere. This is not surprising because typically surfaces naturally eroded away once gardens were abandoned. Soil contours for irrigation are partially preserved, however, in a garden in the maritime villa at Sinuessa, specially constructed to protect the garden from brackish groundwater along the coast near Caserta, Italy.³² Many years ago when salvage excavations at Colchester had uncovered a small area of the Roman period, the British archaeologists were anxious for me to examine some soil contours they had discovered. When I saw the ridges neatly divided by irrigation channels, it was obvious that some ancient gardener had been at work, and the layout was quite similar to those I had seen in Italy. Soil contours have been identified in tomb gardens in Gaul,³³ and in salvage excavations in 1992–3 in an agricultural establishment just outside the ancient town of Nîmes, where planting holes were also found.³⁴ Rows of parallel soil contours were found in the Ionic peristyle garden at Herod's Winter Palace at Jericho, distributing water to planting pots buried in the troughs.³⁵ Such discoveries should encourage archaeologists to be on the lookout for ancient soil contours, particularly on sites where burial of the surface appears to have happened quickly, such as by adding fill for a new terrace, deliberate destruction of the surrounding building or enclosure, or naturally by a landslide.

PLANTING AND CULTIVATION: TOOLS AND METHODS

Tools, of course, are an important source of information about how a

garden was cultivated.³⁶ But, a single tool often had various uses and a single need was often met by using different tools. Ancient tools studied together with descriptions by ancient agricultural writers make it possible to tell much about the agricultural techniques in the gardens, particularly in the Pompeii area.

By far the largest collection of ancient Roman tools is that found in Campania, now in the Naples Museum. The gardens and planted areas in Pompeii and Herculaneum would have been cultivated by hand with a variety of implements. Unfortunately, early excavators did not consider them important and many are now in poor condition – in particular, iron tools corrode badly and lose their size and shape. Tools from more recent excavations at Pompeii are on display in the museum at Boscoreale. There is also a small but carefully curated collection of tools from the villa of Herennius Florus at Boscoreale, now in the Field Museum of Natural History in Chicago.³⁷ Exceptional is a fine collection in the German frontier station at Salzburg, near Frankfort, which includes all the usual agricultural implements.³⁸ Less well-known tools used in gardening and viticulture have also been found in Hungary. About seventy-five hoes of various types come from the territory around Aquincum and the Lake Balaton region along the Danube. All date from the third to the fourth centuries AD.

The single-bladed digging hoe (*sarculum*), having a large square blade or a smaller pointed one, was among the most common of agricultural implements and had many uses in gardens, vineyards, and orchards (Figure 16.3A). The collection in the Field Museum includes seven, one of which is pointed.³⁹ Two *sacula* were found in the Spanish site, Linares.⁴⁰ There



A

Figure 16.3A *Sarcula* in the House of the Menander located in the Pompeii deposit.



B

Figure 16.3B Five-pronged drag-hoe (*rastrum*), House of the Menander, inv. no. 4976.

are also specimens in the Saint-Germain collection.⁴¹

It was used to keep down weeds in young bean plants and other legumes and to aerate the surface soil; Columella enthusiastically recommends three hoeings for beans to increase their yield.⁴² The *sarculum* was also used for working manure into the soil, for lightly covering seed for making garden plots, separating them with paths for the workers, which also served as irrigation channels, and for cleaning seedbeds in late summer.⁴³ It could be used to break up the clods after plowing, and in hilly country it could even be used instead of the plow to break and turn over the soil.⁴⁴

A different type of hoe, the two-tined drag-hoe (*bidens*), was usually used to turn up the soil around the roots of a vine or tree to make a trench for water or air (*ablaqueatio*). Few specimens of the *bidens* have survived, but White comments that “implements of such delicate construction have a poor chance of survival.”⁴⁵ There were different weights of the *sarcula* and *bidens*, depending upon their use. When Pliny speaks of mountain folk dispensing with oxen and doing their plowing with hoes, it would be a heavy tool, but he says beans should be cleaned with a light one (*levi sarculo*).⁴⁶

Cato mentions the *rastrum*, a toothed drag-hoe with four prongs,⁴⁷ but five-tined and six-tined drag-hoes have been found. Although White points out that “a rastrum with four or more tines bears a close resemblance to our garden rake, an implement used for removing surface rubbish and leveling off the soil after digging,” ancient literary references describe its use for deep digging and even as a substitute for the plough.⁴⁸

A long-handled metal spade (*pala*) was used for turning over light and

well-worked soils, especially in gardens and orchards; the heavier long-handled footrest spade (*bipalum*) was for deep digging. Both types have been found in the Vesuvian area and are represented in the Naples Museum collection. The blades can be square, but more often shield-shaped.

Large gardens were tilled by hand. Pliny recommends that soil for a kitchen garden should be broken up in preparation for the autumn and gone over again before midwinter.⁴⁹ Eight men would be required to dig a *iugerum* of land, mix manure in the soil to a depth of 3 feet, and mark it out in plots bordered with sloping rounded banks. Each plot was surrounded by a furrowed path for the workmen and also served as an irrigation channel. Indeed, Maiuri believed that large plots outside the city were tilled by hand, as suggested by the large number of agricultural tools from the House of the Menander in Pompeii.⁵⁰ These included seven *sarcula* (Figure 16.3A) and a five-pronged *rastrum* (Figure 16.3B), far more than needed for the house. Furthermore, fifteen pruning knives must have been to maintain vineyards.⁵¹

PLOWING

Larger produce gardens or orchards might be plowed annually. Spring plowing began when the pear trees bloomed.⁵² In discussing the cultivation of an olive grove Cato emphasizes that good cultivation is good plowing.⁵³ In the light soils of Campania, plowing was done with cows or donkeys, not with heavy steer.⁵⁴ The Romans used various types of plows. Cato distinguishes

between the Roman plow, which he says is good for strong soil, and the Campanian plow for black loam.⁵⁵ We do not know the nature of the plow used in the Pompeii area but the numerous plowshares found indicate they were certainly used. In fact, no ancient Roman plow has been found anywhere in the empire. Only three small votive models are known, all from the provinces, each representing a different type of plow.⁵⁶ Also, the upper register of a wall mosaic from Caesarea in Mauritania, modern Cherchel, Tunisia (Figure 16.4) shows an orchard plowed by oxen.

Ancient authors often mention plows, but the only description is found in Vergil.⁵⁷ Columella says that when plowing in an orchard the plowman must use extreme caution lest the oxen be injured and their necks jolted, if the plowshare is driven with too great force against a root, or lest an ox strike a tree with his horn and injure it.⁵⁸ White, in a long discussion of the plow and its parts, comes to the conclusion that at present it is impossible to reconcile the literary testimonia with the available archaeological evidence.⁵⁹

PLANTING AND INTERCULTIVATION

I

ntercultivation, the planting of multiple crops, particularly within an orchard or vineyards, was practiced throughout the empire. A newly planted orchard may not reach maximum production until about twenty years, even though trees grown from cuttings can produce some fruit within five to eight years. Then, too, the yield of a mature orchard is notoriously inconsistent; variations in climate and



Figure 16.4 The Travaux Champêtres showing orchard plowed by two oxen (upper register), bulls plowing under seeds in orchard (middle register), workers pruning vines (bottom register), Cherchel, mosaic, now located in the Museum of Cherchel.

other factors may impact its production from one year to another.⁶⁰ Intercultivation assured the owner of income, for example, when there was not an abundant olive yield.⁶¹ But, once established, an olive orchard could produce income for many centuries, even at times millennia. Indeed, some of the largest olive trees surviving today could date from Roman times.⁶²

Planted under orchard and olive trees could be a variety of vegetables, particularly in the Vesuvian area where the soil is extraordinarily fertile.

Mosaics show that intercultivation was practiced in the provinces. A mosaic from Cherchel (Figure 16.4, middle register) pictures two bulls plowing under seeds, which a workman is sowing in an orchard.

Scattering the seeds evenly required considerable skill. Pliny says "the hand must always keep in time with the pace of walking, and always go with the right foot."⁶³ As White points out, the best surviving depiction of a sower "shows him advancing, right foot first, broadcasting with both hands from either side of a wide plaited basket which is slung round his neck. As he walks the sower lifts his right hand to shoulder-height, opening his fingers in succession to secure an even distribution."⁶⁴ One of the forty squares of the famous mosaic from Saint-Romain-en-Gal, now in the Louvre, showing a sower in an orchard scattering seed that is covered by a plowmen and his two oxen, attests the practice of intercultivation in Narbonaise Gaul (Figure 4.2).

PRUNING

As we have noted, fifteen vine-pruning knives were found in the procurator's quarters in the House of the Menander, Pompeii. Pruning was essential for the proper maintenance of a vineyard or orchard because it encouraged the growth of wood that could bear fruit. The evidence comes from ancient writers, particularly Columella, who has much to say on this subject and gives the proper time to prune, depending on the vine and the climate of the area.⁶⁵ The vine should be reduced to one small rod, leaving two eyes close to the ground. The pruning should not be done next to the joint, endangering the growth of the eye. An oblique cut made midway between the joints is suggested so the scar cannot hold rainwater. Indeed, one carbonized vine pruning, discovered among hay gatherings from an ancient

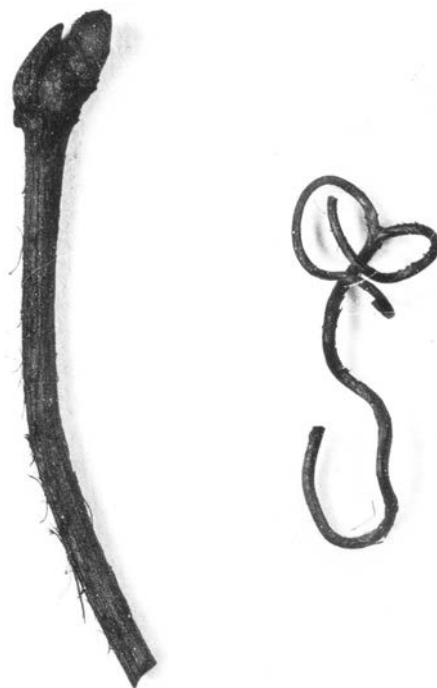


Figure 16.5 Carbonized fragment of pruned vine.

vineyard and stored in the villa rustica at Oplontis, reveals a diagonal cut as recommended by Columella (Figure 16.5).

GRAFTING

Romans knew various methods of propagating trees. In addition to their knowledge of seeds and layering, they also had a very sophisticated mastery of the difficult art of grafting. Seedlings could be a source of new trees, but seedlings were not reliable and often reverted to their wild form. Cuttings could be used, but like seedlings their shallow roots required much watering until they were well established. Hence, grafting was used. Grafting also made it possible to introduce new and better varieties. The agricultural writers and Pliny all treat the grafting of trees and vines, but Columella gives the most detailed treatment, discussing the four methods of grafting known to

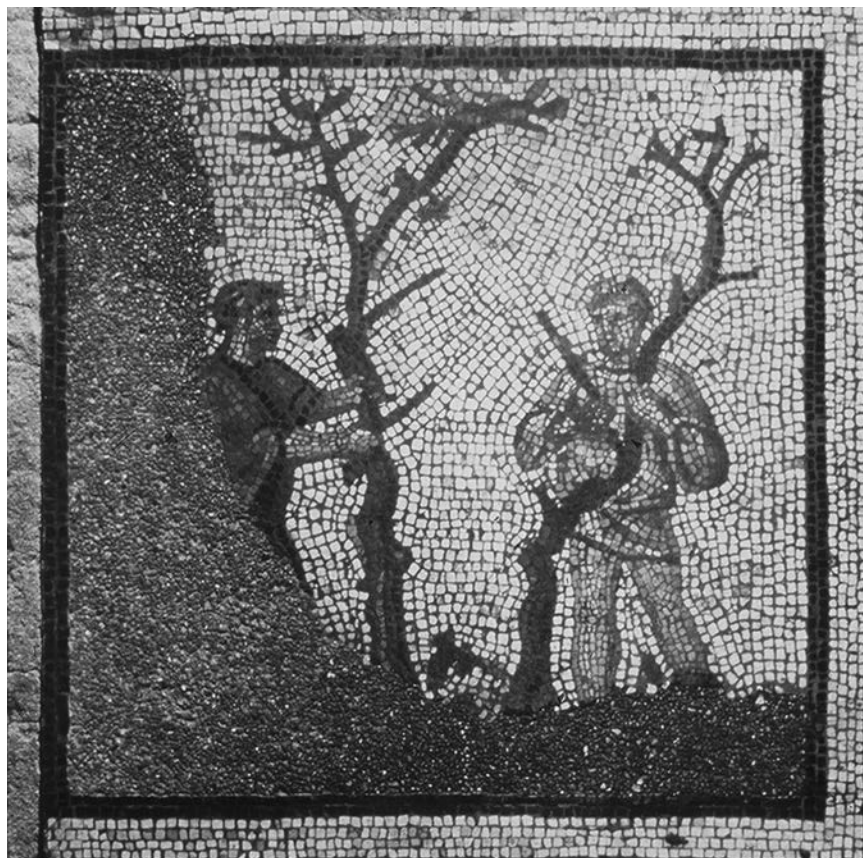


Figure 16.6 Grafting of fruit trees, Saint-Romain-en-Gal, mosaic.

the Romans.⁶⁶ 1) cleft-grafting – the simplest method, in which the stock was cut and cleft so the carefully shaped scion could be inserted into it. A spring scene in the large mosaic from Saint-Romain-en-Gal shows the grafting of fruit trees in this manner (Figure 16.6). The worker on the left is preparing the graft with a saw; the worker on the right is inserting the graft by cleft-grafting.⁶⁷ The many regional variants of the olive that permitted it to be planted in even marginal environments had been developed through experimental grafting, and then propagated by such cuttings; 2) bark-grafting – the scion was inserted between the hard wood and the bark; 3) patch-budding (*emplastratio*)⁶⁸ – the stock receives actual buds with a little bark into a part of it that has been stripped of bark; 4) bore-grafting – used only for vines, the stock was

carefully bored with a special augur. This was a delicate operation, and the old type augur produced sawdust inside the hole, which was difficult to remove and tended to cause burning. Columella invented the “Gallic augur,”⁶⁹ which “produced shavings instead of sawdust, and left a very small wound and thus removed two of the important causes of failure of the graft.”⁷⁰

PLANT PROPAGATION WITH TERRACOTTA POTS (*OLLAE PERFORATAE*)

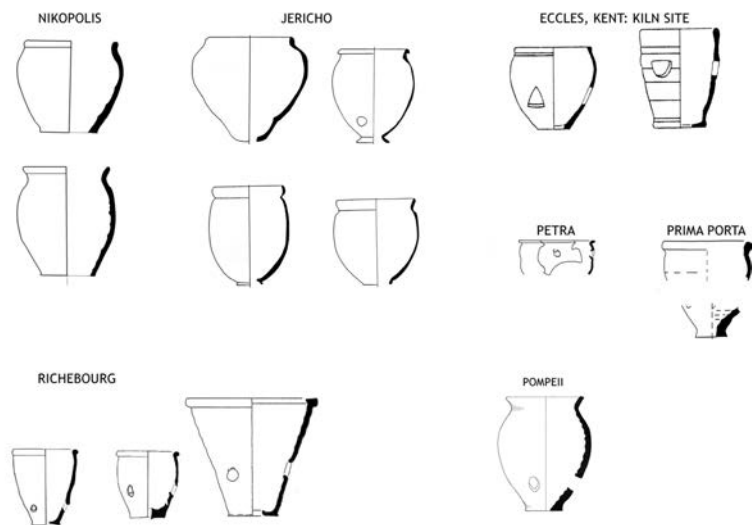
Terracotta planting pots in which plants were started are known throughout the empire and, after years of misidentification, are now recognized as a common feature of Roman-era gardens.⁷¹

Figure 16.7A Planting pots from the House of the Ship Europa, 1.15, Pompeii.



A

Figure 16.7B *Ollae perforatae* from the Roman Empire, drawing.



B

Macaulay-Lewis has shown that most purpose-made pots were locally produced for private or commercial nurseries, where imported plants would be used to propagate cuttings and seedlings for the local market.⁷² The pots were then used to transport plants from the nursery to the

garden, where they were often planted in the soil with the plant.

The usual ancient pot, unlike our typical modern flowerpot, is curved in at the top. About halfway up the convex sides are often three holes, although sometimes there are fewer or none at all, and there is one in the bottom (Figures 16.7A; 16.7B).

Other variations include straight sides (Greek versions) and varied placement of the holes along the body, some high on the shoulder, others low near the base, or no holes at all. Most pots are 12–15 centimeters in height, but again, there are variations. Small pots, reported from Petra, are only 5–7 centimeters high.⁷³

One of the largest collections, over two hundred, of purpose-made planting pots is from Pompeii.⁷⁴ Just in the garden of the House of the Ship Europa we found twenty-eight terracotta pots, embedded at varying depths along four walls. A cluster of six appeared to be half pots. These and the eight embedded only slightly below the surface of the soil were filled with soil and had apparently been planted with seed, or a very small plant, for we found no root cavity filled with *lapilli*. There were tree root cavities in the other pots (Figure 16.8).

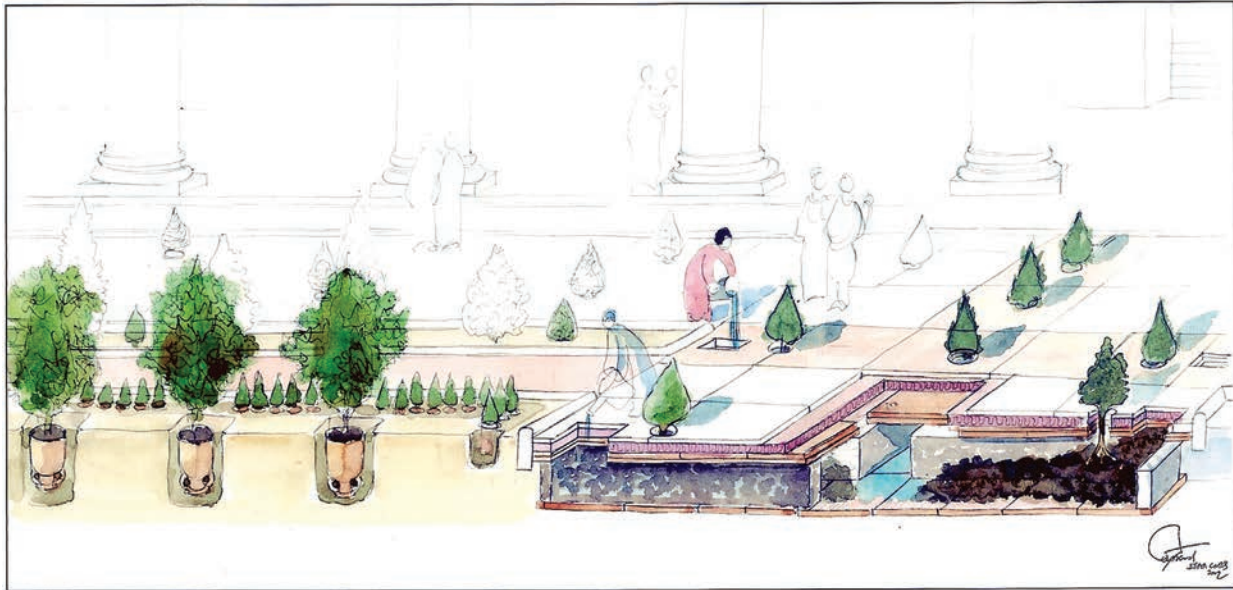
We found many pots in the Villa of Poppaea at Oplontis in the large garden with a portico on three sides, to the east of the main entrance. At the edge of the

garden near the columns were two parallel rows (2.6 meters apart) of root cavities. The cavities were directly in front of the columns, except at the corners. There was a planting pot with three holes on the sides and one in the bottom at almost every location. The pots appear to have been broken before the plant was set in the ground, and in some instances part of the pot apparently dropped off because all the fragments were not found in every location.

In the row nearest the columns we found a second pot, always to the left (the viewpoint from the courtyard) of the first pot. They were not placed with their bases planted firmly in the ground, but were somewhat aslant, pointing toward a column. When we examined the intact pots, still full of soil, we found two tiny cavities (about 1.5 centimeters in diameter) at opposite sides of the rim, which reached to the bottom of the pot. They were not root cavities, but more probably the cavities left by tiny stakes, which were used to guide and support the little plant, which



Figure 16.8
Dr. Fidegelli examining a cast of the roots of a large tree started in small pot, Pompeii.



A

Figure 16.9A Reconstruction of part of the temple garden, watercolor.



B

Figure 16.9B Planting pots from the excavations at the Palatine.

was too small at the time of the eruption to leave a root cavity. A total of eighty-five pots, intact or in fragments, were found in this garden. Other pots were found also at Herculaneum and Stabiae.

The Romans also used old *amphorae*, which I first discovered in the villa of Poppaea at Oplontis. In the sculpture

garden beside the large swimming pool, a tree behind statue base VIII had been started in the top half of a broken *amphora* that had been turned upside down and used as a pot. Reused *amphorae* have since been found *in situ* at Horace's villa and the Temple of Elagabalus on the Palatine, where both the top and the bottom halves were employed.⁷⁵ Excavations made by Dr. Salza Prina Ricotti and myself in the garden on the east bank of the Canopus in Hadrian's Villa at Tivoli discovered that trees or shrubs had been started in discarded *amphorae*, which had been cut in two, each half serving as a pot.⁷⁶ In the excavations of the Palatine, undertaken by the École française de Rome between 1985 and 1999, at the Temple of Elagabalus, large numbers of *amphorae*, some halved, were used as flowerpots, sunken into the ground (Figures 16.9A; 16.9B). The narrower beds contained large *amphorae* alternated with smaller ones. The wider, middle beds had large *amphorae* defining

the median axis, and smaller *amphorae*, tightly aligned, along the border. One possible purpose of these pots was to maintain humidity at the roots (particularly important for an artificial terrace in dry seasons), and perhaps to limit the growth.

Planting pots have been found in many other sites throughout Italy, with over one hundred in the area of Prima Porta, most of which were found during excavations in the Villa of Livia at Prima Porta.⁷⁷ Both purpose-made pots and reused *amphorae* have been found in the gardens on the Esquiline and Palatine.⁷⁸ Three planting pots were found at Ostia at the base of columns in the garden of the House on the Via del Tempio Rotondo. Two pots, a fragment of a third, and a half *amphora* were found in the Plinian-era garden at “Horace’s villa” in Licenza.

Many purpose-made planting pots have been reported in the provinces. Dorothy Burr Thompson provides one of the earliest reports from her excavations at the Temple of Hephaistos in Athens, where straight-sided pots were found in rock cut pits around the building.⁷⁹ Pots also mark the location of plants at the great victory altar at Nikopolis.⁸⁰

Elsewhere in the eastern Mediterranean, elegant pots with bottom holes shaped like the mouths of bottles have been found throughout the extensive gardens of Herod the Great at Jericho, although no pots have been found in his other gardens.⁸¹ Pots that are somewhat similar in shape (compared to other Roman-era pots) have been found in the great pool and garden terrace at Petra.⁸²

In the African provinces, a spectacular unpublished find of reused *amphorae* comes from a fourth-century AD garden in the House of the Nymphs in Neapolis,

Tunisia. Here again, archaeologists discovered that the vessels had been cut in two and used as planting pots.⁸³ The discovery of extensive rows of large reused *amphorae* signaled a plant nursery in Abu Hummus, Egypt, discussed below.⁸⁴

Pots have been excavated *in situ* throughout Gaul and collectively published by Barat and Morize.⁸⁵ Planting pots for flowers set in a rectangular pattern were found at the villa of Richebourg (Yvelines, Île de France).⁸⁶ More recently during salvage excavations in Nîmes nine planting pots were found *in situ* in House B,⁸⁷ and in an agricultural establishment to the east of the ancient city nine pots were found.⁸⁸ Pots with triangular side holes are reported at Eccles, Kent in Britain.⁸⁹

LAYERING

We found two well-preserved examples of layering vines in the large vineyard (II.v) at Pompeii. The technique is simple – a shoot is bent over and shallowly covered with soil until it takes root. One of our layers had formed two roots; another, a long one (over 100 centimeters), had grown three large roots (Figure 16.10). Cato⁹⁰ gives instructions for layering trees, describing two approaches: 1) Scions that spring up from the ground around a tree can be bent down and pressed in the soil with the tip elevated so that it will take root. Two years later they can be dug up and transplanted. Fig, olive, pomegranate, quinces, plums, and all other fruit trees, laurels, myrtles, hazel, Palestrina nuts, and the plane tree can all be layered this way. If you wish to layer more carefully, Cato recommends putting scions in baskets, or pots with holes in them, and



Figure 16.10 Root cavity showing layering.

placing these in a trench; 2) A branch still on a tree is pulled through a hole in a pot or basket, which is then filled with soil. After two years, Cato recommends cutting the branch below the basket or pot, separating the basket down the side and through the bottom or if it is a pot breaking it, and planting the branch in a trench along with the basket or pot. Pliny repeats Cato's instructions, delighting in the idea of branch ends forming roots on the tops of trees, and calls it a "daring device of creating another tree a long way off the ground."⁹¹

The purpose-made pots found in Campanian gardens, described above, with very few exceptions, had holes made in the bottom before they were fired. When these holes are larger than necessary for drainage, they apparently were used for layering for a branch to be drawn through them (Figure 16.11). The many pots found in the Southeast Portico garden (59) were



Figure 16.11 Restored planting pot from the House of the Ship Europa, 1.15, Pompeii.

likely lemons, a tree that was often air-layered for propagation.⁹²

NURSERIES AND GREENHOUSES

The ancient Romans had nurseries, where young plants were carefully tended until they were established enough to transplant. Vines, olives, and orchard trees were kept for several years until they had established strong root systems. Cato gives detailed instructions for making a nursery.⁹³ Olives were started in nurseries from slips and were very slow growing, needing five years before they could be transplanted.⁹⁴

A nursery has been identified at Pompeii.⁹⁵ The area was divided into plots separated by furrows that served as paths and as irrigation channels. A row of *amphorae*, their tops broken off, were filled with soil and placed in the ground. In these, plants were started, either from seed or from layers.

In 1964, Riad reported on a large complex found during road construction near

Abu Hummus in the Western Delta of Egypt. Based on water channels, basins, and extensive rows of reused *amphorae*, he interpreted it as a commercial nursery. Recent excavations have confirmed Riad's identification, dating the nursery from the first century BC to the second century AD.⁹⁶

Tiberius was so fond of the vegetable *cucumis* that he insisted his gardeners supply him with this delicacy year round. To do so, according to Pliny, they put planting beds on wheels that could be kept in the sun, but when it got cold they could be wheeled inside under frames glazed with transparent stone (*lapis specularis*).⁹⁷ Columella writes that the vessels were covered with *specularia* so that they could be left out even when it was cold.⁹⁸ Regardless of the slightly different descriptions, both may be interpreted as proto-greenhouses.

Martial⁹⁹ complains that as a guest he is given poorer treatment than his host's foreign trees, which are being grown under *specularia* to protect them from the winter cold. In another example, Martial¹⁰⁰ speaks of the grapes of Entellus, secretary of the emperor Domitian, that live shut up in transparent *gemma*; it is the fortunate grape that is roofed and yet unhid.¹⁰¹ In another epigram, he compares lilies enclosed in *vitrum* or roses that cannot hide behind *gemma* to a newlywed Cleopatra, who attempts to disappear from her husband by plunging into a pool of water.¹⁰²

It would be helpful to know just what the ancient authors meant by the words *specularia*, *vitrum*, and *gemma*. Landgren addresses these words in her section on the forcing of such plants as cucumber, lilies, and roses to mature before their natural time. The *Oxford Latin Dictionary* defines *specularia* as windowpanes made

of *lapis specularia*. Modern scholars translate *specularia* in different ways: gypsum, salenite, mica, muscovite, oiled cloth, or glass. We know that the ancient Romans had glass, which they called *vitrum*, and we are well acquainted with thin, beautiful glass bowls, goblets, and other small objects. Martial clearly equates *vitrum* with *gemma*, which would indicate glass of high quality. Large pieces of glass were found in the early excavations of Pompeii, though their provenance is unknown. Well-preserved panes of window glass are reported from the early excavations at "Horace's villa" at Licenza and the promontory palace at Caesarea Maritima.¹⁰³

TREATING PLANTS WITH CARE

The Romans were knowledgeable about plant diseases. Pliny discusses at length the diseases of trees and vegetables.¹⁰⁴ The Romans were well aware that good gardening practices could avoid or lessen many diseases. Pliny warns that vines were weakened and made susceptible to disease by careless workers who tied vines too tightly, inflicted damaging blows when trenching around them, pruned with too blunt a knife, or displaced the roots and skinned off the bark from the trunk when plowing underneath vines.

Some of the remedies recommended by Pliny¹⁰⁵ include loosening the soil and banking it up to let air get to the roots, or covering them, making a channel to give them water or drain it away. Soil contours preserved evidence of this practice in the Vesuvian area. Manuring and pruning made plants stronger and disease-resistant. Pliny also recommended letting

out the sap, like a surgical bloodletting, by scraping a ring of bark and stretching out the vine-sprays, checking the shoots, and trimming buds shriveled or blighted by cold weather.

But different plants require different treatment, as Pliny points out. For example, the cypress scorns both irrigation and manuring and hates being dug around and pruned. Irrigation kills the cypress, but is especially good for grapes and pomegranates. Most trees benefit from pruning. But he warns against remedies being used to excess and causing greater problems. Pruning, he says, should not be assault and battery. Vines require a yearly trimming, but poor pruning, such as pruning done with an upward cut, causes injuries that make the vine subject to disease. Myrtles, pomegranates, and olives should be pruned every other year, other trees less often, and never in autumn.

Manuring should not be done when the sun is hot, or when the dung is too strong or too fresh. When fruit trees are ailing he recommends pouring wine lees on them, or else planting lupines around their roots. It is good for the fruit if water in which lupines have been boiled is poured on their roots.

MANAGEMENT OF INSECTS AND OTHER PESTS

Cato gives prescriptions for certain medicaments, and the quantities to be used, which Pliny quotes at length. To prevent a vine from breeding leaf-rolling caterpillars, Cato¹⁰⁶ advises boiling down 2 gallons of olive oil lees to the thickness of honey, then boiling it again mixed with

a third part of bitumen and a fourth part of sulfur until it reaches the consistency of glue. The second boiling should be done in the open, lest the mixture catch fire if done indoors. Cato then smears the mixture around the roots and under the branches of the vine. Pliny says most people think urine is just as effective, provided it is mixed with an equal amount of water. He goes on to give various remedies, some of which border on the superstitious. To prevent the creature that gnaws on young vines, for example, some people recommend wiping the pruning knives on a beaver skin.

According to Pliny, ants are kept away from trees by smearing the trunks with a mixture of red earth and tar. Some people get the ants to collect in one place by hanging up a fish nearby, or they smear the roots of the tree with lupin pounded with oil. Many people kill ants and moles with the dregs of olive oil, and to protect the tops of trees against caterpillars and other pests they advise touching them with the gall of a green lizard; but as a protection against caterpillars, in particular, they say that a woman just beginning her monthly courses should walk around each of the trees with bare feet and her girdle undone. But Pliny says there are some remedies, such as charms, that he would not venture to seriously introduce in his book.

Garden vegetables are also liable to disease. Pliny names the various insects that breed on garden plants – springtails in navews (a type of small turnip), caterpillars and maggots in radishes and on lettuces and cabbage. The latter two vegetables were also commonly infested by slugs and snails. The insects that infest leeks are easily caught by throwing dung on the plants, as they burrow into it. Pliny quotes

many remedies from a book *Kepourika* (*On Gardening*), now lost, by Sabinus Tiro, dedicated to Maecenas.¹⁰⁷ I quote only a few: ants are especially destructive in gardens that were not well watered; the mouths of ant holes could be stopped up with sea-slime or ashes, but the heliotrope plant is most effective; sowing some bitter vetch with navews protects them; chick peas planted with cabbages protects them from caterpillars. More problematic is the remedy of fixing on a stake the skull of a female animal of the horse class or hanging up a river crab in the garden to totally exterminate caterpillars from the garden. Gnats, which infest damp gardens, can be driven away by burning galbanum resin.

Watering radishes, beet, rue, and savory in salt water has a curative value, according to Pliny. All other plants are benefited by fresh water, preferably from a cool stream, for water from a pond or conduit carries weed seed. But rain nourishes plants best and kills the insects that infest them. The best time to water a garden is in the morning or evening.

HARVESTING AND PROCESSING

Mosaics give valuable information regarding harvesting in the provinces. White describes a mosaic found in Cherchel, Algeria in 1958 that “gives an authentic impression of the vintage of a North African estate of the second century AD. There is a great trellis with climbing vines, and clusters of ripe grapes overhead. The entire process is vividly depicted – the cutting, placing the grapes in baskets, loaded baskets being carried to a cart for transport to the press, the pressing and

the pouring.”¹⁰⁸ The large mosaic from Saint-Romain-en-Gal that depicts work on a villa estate during the various seasons presents harvest scenes in three squares. A mosaic from Cherchel, now in the Cherchel museum (Figure 16.12), portrays autumn activities related to the grape harvest. One of the activities depicted is the picking of grapes from a trellis and another shows two workmen gathering grapes that they are depositing in a large basket. Another detail in the same mosaic shows the transport of the grapes in a cart drawn by two oxen.¹⁰⁹

Paintings found in Pannonia also depict the harvest of grapes. A detail of a vintage scene, from the largest villa in Pannonia, Balaca, on the northwest shore of Lake Balaton, shows a worker cutting grapes (Figure 16.13A). In the Centurion House of the Legion Camp at Aquincum there is a colorful vintage scene that includes a worker carrying grapes in baskets (Figure 16.13B). A fragment of another wall painting from Aquincum depicts a worker carrying two baskets of grapes hanging from a pole across his neck (Figure 16.13C) and another showing a putto carrying grapes (Figure 16.13D). Archaeological remains of the bases of wine presses have been found in the villa Winden-am-See (second century AD) and Aquincum (third century AD).

The grape knife (*falcula*) is a small sickle that cleanly cuts the grape cluster from the stem, without damaging the vine. Cato advises for a vineyard of 100 *iugera* that there should be forty grape knives.¹¹⁰ Columella¹¹¹ says that as many as possible must be procured and sharpened so that the grape picker would not strip off the clusters with his hand, which causes much fruit to fall to the ground and the grapes

Figure 16.12 The grape harvest, Cherchel, mosaic.



to be scattered. Columella¹¹² stresses the importance of having available double the number of common tools, for the price of the tool is negligible, compared to the cost of an idle slave whose tool has been damaged while using it. There is a *falcula*, found at Nattenheim, in the Trier Museum and one found at Heddenheim in the Frankfurt Historical Museum. About twenty pieces of vine pruning knives (*falx vinitoria*) and some five pieces of the much smaller knife used to cut the grapes from the vines (*falx vineatica*) have been found in Hungary (Figure 16.14), mostly on Lake Balaton and along the Danube, also at Savaria. They also date from the third to the fourth century AD.¹¹³

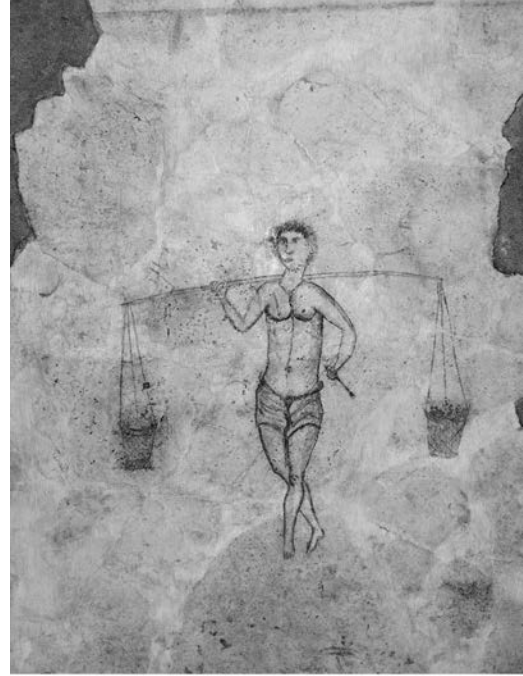
Harvesting olives was a delicate operation and required skill and care. Varro¹¹⁴ says that the olives that can be reached from the ground or by ladders should be picked rather than shaken down, because

bruised fruit dries out easily and does not produce much oil. Fruit picked with bare hands is best, for gloves bruise the fruit and also tear the bark from the branches. Fruit that cannot be reached with the hand has to be beaten down, but a reed should be used rather than a pole, and care must be taken not to strike the olive; Varro says the heavier blow makes a tree doctor necessary. A detail on the upper right of an early second-century mosaic that pictures life on an African estate, from Oudna (ancient Uthina), now in the Bardo Museum in Tunis, depicts a worker gathering olives (Figure 16.15). He uses two light canes and a rope to pull down the branches. The mosaic does not show any provision for catching the olives as they fall, nor does Varro mention any. The method described by Varro is used in Italy today, but large nets are spread to catch the fruit.



A

Figure 16.13A Picking grapes from a ladder, Balaca, painting fragment



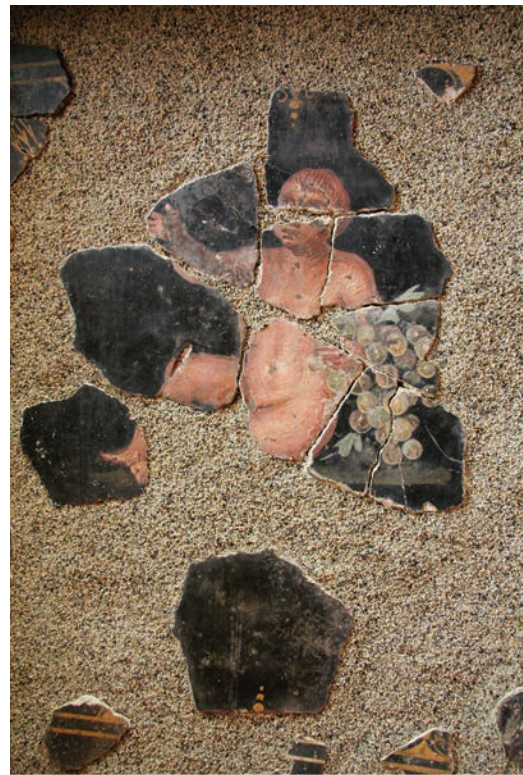
C

Figure 16.13C Worker carrying grapes in two baskets hanging from a pole across his shoulders, Aquincum, painting fragment.



B

Figure 16.13B Worker carrying grapes in baskets, Centurion House, Legion Camp at Aquincum, painting fragment.



D

Figure 16.13D Putto carrying grapes, Aquincum, painting fragment.

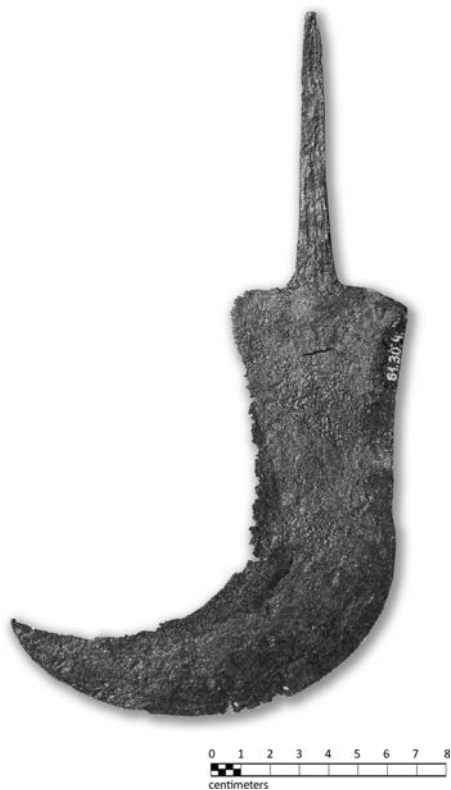


Figure 16.14: Pruning knife, Pannonia.

A less well-preserved autumn square in the Saint-Romain-en-Gal mosaic shows the picking of olives. Olive gathering is also pictured in the bottom of a mosaic dated to the third century, found at La Chebba (Figure 16.16A). Another shows the harvest of apples or other fruit. One worker on a ladder in the tree gathers the fruit, which a second worker carries away in a wooden basket on his shoulder (Figure 16.16B).

Evidence of wine presses throughout the empire indicates the pressing of grape for making wine (see Chapter 4). Evidence of the small vertical press indicates the making of olive oil for perfume and unguents. Large oil presses indicate making olive oil for other purposes.

Yizhar Hirshfeld, who excavated extensively in the Dead Sea Valley, reported

considerable evidence for the harvesting and extraction of fragrance from balsam.¹¹⁵ At 'En Boqeq the remains of a workshop for the production of balsam were found.¹¹⁶ Hirshfeld found a similar workshop in the courtyard of an estate at 'En Feshka, south of Qumran. After Judaea became a part of the Roman Empire, the making and selling of balsam perfume became the main source of income for Herod's building program. In the Herodian Winter Palace in Jericho, Hirschfeld interpreted the "industrial" wing as facilities for the making of perfume – a soaking pool, holding vat, and heavy cylindrical stones for branches picked from the balsam. After the branches were crushed they were soaked in the pool. The resulting perfume was drained into the holding vat and put into jars. On the other hand, Ehud Netzer identified these features as facilities for making date wine from the vast and varied date palm groves of the valley.¹¹⁷ Archaeobotanical retrieval was not conducted in this area of the excavations.

Similar but smaller installations were found in domestic buildings dating from the late Roman and Byzantine period. At En Gedi there was a stone-built basin and a jar buried in the floor, the two connected with a plastered channel. Hirschfeld interpreted the basins as used for soaking and the sunken jar for the perfume essence. Nearby was a unique pottery vessel, also used in the perfume industry. It was a medium-size jar with wide mouth and a double wall pierced with nine small drilled holes "which drained back into the vessel any of the precious liquid that was spilled."¹¹⁸ In a walled courtyard at Ein Gedi was a hearth surrounded by a thick layer of ash. The fourth- to sixth-century structure had thick walls that could be



Figure 16.15 Gathering olives, Oudna, mosaic now located in the Bardo Museum.



A

Figure 16.16A Gathering olives, La Chebba, detail of mosaic now located in the Bardo Museum.



B

Figure 16.16B Gathering fruit, Saint-Romain-en-Gal, mosaic.

sealed by a rolling stone. Inside was a plastered pool, like a bathtub, which adjoined a large rectangular pool. The pool was connected by a channel cut into the wall. Hirschfeld suspected that, as at Jericho, crushed balsam branches were soaked in the larger pool, the oily liquid was transferred by floatation to the smaller plastered pool and then heated with olive oil in the courtyard.

We have archaeological evidence for many fruits and vegetables that we know were raised in the Pompeii area, but any evidence as to how they were harvested is meager. Fortunately, there is evidence as to how one of the most important vegetables in the ancient diet, the broad bean (the only bean mentioned by ancient writers),



A

Figure 16.17A: Threshing floor in the middle of the garden, Pompeii III.5.2.



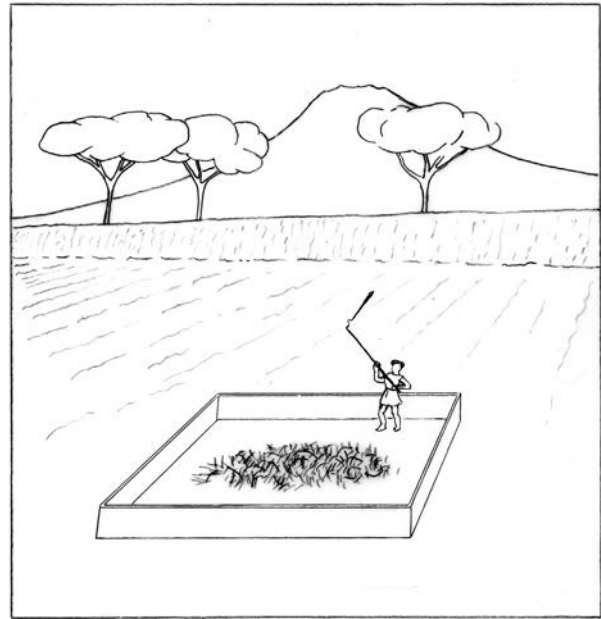
C

Figure 16.17C Threshing beans with *baraca* (flail).

was harvested. The large bean patch in Pompeii (III.7) had a threshing floor in the middle of the garden, a low-walled paved enclosure in which beans were threshed (Figure 16.17A), such as is commonly used in the Pompeii area today. The instrument used for threshing the beans is called a *baraca* (flail) (Figures 16.17B; 16.17C).

CONCLUSION

As we have seen, the evidence for gardening practices and techniques is still meager in parts of Italy and in the provinces. It is hoped that in the future,



B

Figure 16.17B: Threshing beans reconstruction.

archaeologists will be on the lookout for soil contours, planting pots, evidence of soil replacement, or planting pits cut in rocky surfaces that would indicate the presence of a garden, as well as the tools and representations in ancient art that may continue to advance our understanding of ancient practices for harvesting and processing the products of gardens, orchards, and groves. The evidence we have to date indicates that gardening techniques and practices tended to be similar throughout the Roman Empire. When Romans went to the provinces they tended to apply gardening practices they had used at home, but as in all other aspects of their lives, they were also quick to employ useful new techniques encountered through their travels and trade. They had discovered that, even in Italy, variations in geography and climate often necessitated the modification of customary practices to get the largest possible yields in Rome's growing economy.

Chapter 17

PLANTS OF THE ROMAN GARDEN

Wilhelmina F. Jashemski, Kathryn L. Gleason, and
Michael Herchenbach

WHEN WE THINK of gardens, we immediately think of the plants that grew in them. Because of the tragic way in which the Vesuvian sites were preserved, they contain an abundance of evidence regarding the plants that grew there in antiquity (Figure 17.1). Outside of the Vesuvian region, the remains of the actual plants of a garden are rare to find, even when other evidence for a garden has been discovered. However, archaeologists and archaeobotanists are now systematically collecting plant remains from garden fertilizer, wells, kitchens, hearths, ditches, refuse pits and fills, latrines, and cesspits on sites throughout the ancient empire. As Wilhelmina Jashemski first prepared this chapter with colleagues in botany, they saw the extent to which an increasing variety of plants became available in many regions of the Roman Empire during the first centuries AD.¹ New studies are beginning to chart the trade routes, as well as to document local efforts – whether successful or not – to adapt imported plants to new locales. In tandem with texts and representations in art, a picture is slowly developing of the dynamic trade and distribution systems of plants throughout the Roman Empire, revealing the ways they were distributed to markets and nurseries and then on to gardens, orchards, and fields, and ultimately to integration into the culture of the inhabitants.

Despite these advances, we cannot, in most instances, determine the species of plants in a specific garden from the archaeobotanical

Figure 17.1 The reconstructed garden of House II.I at Herculaneum.



remains, although planting pots, pits, and root cavities can often tell us their locations. Wilhelmina Jashemski was fortunate in working in the Vesuvian region, where the circumstances of the eruption preserved plant remains in exceptional ways. However, despite her careful integration of archaeobotanical finds with textual and artistic evidence, she expressed disappointment that robust archaeological remains of garden plants could not be found even in that region. Her interpretations of garden plantings were based upon the educated, but not scientific, opinion of Dr. Fideghelli, who examined the root cavities in the Vesuvian gardens and helped her narrow the range of possibilities: upon evidence from pollen or carbonized remains; and upon a consideration of plants mentioned in texts or represented in art that might be appropriate to the particular garden.

Since her death, there have been advances in archaeobotany. We have more scientific techniques than were available to her, but

still not enough to reliably identify the plants in a garden. She would have been delighted to learn that pollen extracted from plaster on garden features (walls, pools, columns, etc.) is more reliably preserving pollen from ancient gardens than she found to be the case with soil samples.² This evidence, in turn, can assist in determining if carbonized plant remains, commonly recovered from garden soils, are from garden plants, from fertilizer, or other sources. Environmental studies, such as soils analysis, or the recovery and analysis of mollusk or insect remains, are now used to indicate other aspects of a garden's environment: acid or basic soils, sunny or shady areas, high or low vegetation, sparse or dense foliage. To this scientific information, we may evaluate the social, economic, and religious uses of Roman plants gained from archaeological evidence in tandem with texts in order to further assess garden plants and their cultural variety.³

This chapter outlines the types of evidence that can be used to understand

plants in Roman gardens and then moves on to review the state of archaeological research on Roman garden and orchard plants, their use, and dispersal in the Roman world.⁴ The current state of the field is that a large corpus of Roman-era plants has recently been assembled by archaeobotanists, some of which may indicate plants grown in local gardens or orchards, as opposed to field crops or being imported as foodstuffs. To demonstrate local cultivation, a range of evidence – plant micro- and macro-remains – must be studied and compared. Relatively few garden sites have been studied archaeobotanically, but this larger contextual picture will be essential to interpreting the remains when specific gardens are examined. Knowledge of plants in literature and art will also be advanced.

The original manuscript of this chapter by Wilhelmina Jashemski included an illustrated catalog, arranged by the types of plants used in different garden contexts, now available to readers electronically in Volume 2. It begins with examples of large trees valued for their shade and/or characteristic form in gardens, followed by ornamental and fruit trees popular in both orchards and *viridiaria*. Flowering shrubs, vines, and plants used in hedges follows. Finally she lists cultivated and wild flowers, aromatic plants, and garden vegetables and herbs. The catalog complements Jashemski's other publications and offers an overview of some of the most significant or interesting species associated with ancient gardens, abundantly illustrated with ancient representations, archaeological specimens, and modern plants, with many previous unpublished images by Stanley Jashemski. We have updated it

with new information, as she would have wished.

TYPES OF EVIDENCE FOR PLANTS IN THE ROMAN EMPIRE

Plants in Ancient Texts, Inscriptions, and Graffiti

Ancient texts have long provided the foundation of knowledge about ancient plants but the evidence is not without its problems. The literary references vary from scattered mentions of plants in poetry and prose to the more detailed descriptions in the works of the agricultural writers Cato (d. 149 BC), Varro (d. 27 BC), and Columella (d. ca. AD 70), and Pliny (d. AD 79). Many are discussed above, particularly in Chapters 9 and 10. Some plant names have endured since antiquity and the texts allow us to be fairly certain they pertain to the same genus known today, such as the crocus (Greek κρόκος, Latin *crocus*), the cyclamen (Greek κυκλάμινος, Latin *cyclaminus*), and the chicory (Greek κιχώριον, Latin *cichorium*). In other cases, it is not possible to know what plant an ancient author is referring to when he mentions only the name of the plant but does not describe it. Identification is particularly difficult when the Romans gave the same name to different plants, as in the case of the *viola*.⁵ Also, at times, the same plant is referred to by several different names, perhaps the result of regional nomenclature.⁶ With the advent of archaeobotany, literary references no longer form the sole basis for plant identification and use in the classical world.

Our knowledge of Roman plants relies most heavily on Pliny's *Natural History*. This encyclopedic work consists of thirty-seven books, which cover, as the author says, "the world of nature."⁷ By far the largest part of the *Natural History*, Books 12–27, is devoted to plants and their various uses, including medicinal. Pliny's method was to bring together, for the first time, the scattered material from many authors. Fortunately, he is meticulous in citing his sources (more than one hundred). Most important, Pliny studied the actual plants. He tells us that "he enjoyed the good fortune to examine all but a very few plants" in the garden of Antonius Castor, the greatest authority of his time, who grew many specimens in his special garden.⁸ It is in his chapters on botany that Pliny comes closest to making a genuine contribution to science, providing us with important information regarding the introduction of new horticultural and agricultural species into Italy.

Pliny nowhere mentions, however, his contemporary, the great herbalist Dioscorides of Anazarbos, a skilled Greek physician from Asia Minor. The herbal of Dioscorides describes more than five hundred plants and their medicinal uses, and it became the standard work for centuries in both the East and the West. Written in Greek, it is better known by its Latin title, *De materia medica* (The Materials of Medicine). Dioscorides points out that he knew plants from studying them in the field and not merely from books. But he studied carefully and used extensively the works of those who came before him. Later annotations to Dioscorides inform us about synonyms of the Greek plant names in other languages – Armenian,

Dacian, Egyptian, Ethiopian, Gaulish, Spanish, and of course Roman plant names. Unfortunately, our knowledge about the time frame when those names were added and the source from which they were taken remains uncertain.⁹

Another valuable source of information is the fourth-century Palladius, a knowledgeable agricultural writer, who owned estates in Italy and Sardinia.¹⁰ His *Opus agriculturae* (The Work of Farming) is a month-by-month practical manual, which includes instructions on the vegetables, herbs, etc. to be planted each month. Palladius relied on earlier authors such as Columella, Gargilius Martialis, a third-century writer, and others but it is also clear that he had personal, practical experience.¹¹ He was aware of climatic conditions and variations in soils, pointing out that the gardener should take into consideration his location and the local weather. For example, in a cold spot autumn sowing should be earlier, the spring one later; in a hot one, autumn sowing can be later, the spring one earlier.¹²

Outside Italy, we have no preserved Roman-era agricultural manuals. Fortunately, Columella, originally from Hispania Baetica, and Pliny the Elder frequently mention varieties of plants that grew well or originated in the provinces. They, as well as other agricultural writers, cite older foreign sources, above all, Mago the Carthaginian, the "father of husbandry," whose twenty-eight books on agriculture most likely date back to the end of the third or beginning of the second centuries BC.¹³

Clearly, many Greek and Hellenistic works contributed to the Roman knowledge on gardening and plants. According to Varro, for example, more than fifty

treatises in the Greek language, from Sicily to Asia Minor, were helpful for writing his own books on agriculture.¹⁴ One of the most influential Greek writers on plant life of the pre-Roman era was the philosopher Theophrastus (d. 287/6 BC), the successor of Aristotle at the Lyceum, one of the famous philosophical schools of Athens. Theophrastus, now commonly regarded as the father of botany, writes about plants, mainly of Greece, in his surviving important works *De historia plantarum* and *De causis plantarum*. He drew his expertise from the study of actual plants, most likely many in his own garden in Athens.¹⁵

The Hebrew and the Christian Bible both offer long-cherished sources of information on plant use. Immanuel Löw brought the ancient sources discussed above to bear on his seminal work of 1881 on plant names in the Jewish tradition, *Die Flora der Juden*, as well as *Aramäische Pflanzennamen*.¹⁶ Michael Zohary has provided an authoritative account of biblical plants in English, and the most recent works are by the botanists Nigel Hepper and Lytton John Musselman.¹⁷ Plants and gardens are also frequently mentioned in the rabbinical sources. Sandra Shimoff offers an overview with discussion of specific plants, such as the sycamore, vine, and the rose.¹⁸

Graffiti and inscriptions also furnish useful information. The Pompeians, for example, often scribbled on the walls of houses, shops, or villas lists of items bought or sold, crops raised, or other information that sometimes mention plants.¹⁹ Palm branches and other representations of plants are seen in graffiti of the second and third centuries AD at Ostia.²⁰ Some inscriptions from Delos reference many plants that were grown there, such as

grapevines, palm, laurel, and olive, as do inscriptions from Dura Europus in Syria.²¹

Throughout the empire, labels on *amphorae* and other containers record the names of plants or plant products that had been stored in them. A collection found in the storerooms at Masada, for instance, tells us of apples from Cumae, Valerian wine, and provides other links between the stores and their origins.²² Other *dipinti* provide important evidence of the trade of Roman agricultural products to the north-western provinces. Beyond the relatively well-documented trade of wine, olive oil, and garum around the Mediterranean, Ulrike Ehmig has also found interesting evidence for the trade of Syrian figs and possibly pears from North Africa to the ancient Augusta Vindelicum (modern Augsburg).²³ An *amphora* from Cologne has a clear notation of OLI (olives) and a later one DULCIS, which could mean sweet olives, or perhaps simply a different content (Figure 17.2).²⁴ Such evidence adds to our understanding of the dynamics of the trade of plant and plant products around the Mediterranean and beyond, providing context for an eventual study of trade in horticultural plants.

The evidence from papyri for plants is discussed by Roger Bagnall in his introduction to Egyptus in Volume 2 of this book. To this we may add several references to plants in the Dead Sea Scrolls, which range from items of symbolic²⁵ and pharmaceutical²⁶ value to agricultural purposes.²⁷

Plants in Ancient Art

Representations of plants in Roman art are abundant, but they vary greatly in

Figure 17.2 *Amphora*
from Cologne used for
olive transport.



the extent to which they can be identified throughout the empire. In general, the portrayal of plants and gardens during the Augustan era is highly realistic and finely detailed, allowing identification to genus and sometimes to species. The interest in careful representation of plants continued through the Julio-Claudian and Flavian eras, and representations that are less finely rendered can sometimes be compared with finer examples. In later Roman art, plants receive a more stylized treatment, allowing confident identification of only the more iconic examples. At present, evidence from art allows us to sketch a general sense of a garden culture in a particular area but not to evaluate the extent of that culture. The area buried by the eruption of Mt. Vesuvius, where artistic representations and garden remains are in such close proximity that comparisons can be made, offers a model for other areas with more fragmentary remains as garden archaeology reveals more remains of actual gardens.

PAINTINGS

The many examples of plants portrayed in wall paintings constitute a unique and precious source of information.²⁸ Plants and plant motifs not only decorated garden walls, they are found throughout properties. A garden painting often extended the limited space of a room or courtyard and could portray plants too large to grow in the actual garden, as discussed in Chapter 11. Although these garden scenes are fanciful, with their fruits and flowers all on display regardless of season, many plants are rendered in sufficient detail that we can identify them with certainty and begin to study their role in garden culture. Of these, the garden scenes from the Villa of Livia at Prima Porta are the most closely studied, but later paintings throughout the Vesuvian region are also represented in great detail. However, all garden paintings must be used critically, as the artist was at liberty, for example, to stylize or combine features of different plants, or in other ways to take creative license with the depiction of plants (Figure 17.3).²⁹



Figure 17.3 Silver poplar identified in stylized representation of plants in a garden painting at Oplontis.

Garden paintings are found in similar contexts throughout the empire from the first to third centuries AD. The villa at Fishbourne featured a low wall with painted foliage and a trellis fence to extend the effect of the garden's plantings along the foundations of the courtyard.³⁰ During the next century, similar paintings provided illusionistic gardens and garlands for the residents of large urban apartments in the Hanging Houses at Ephesus (Figure 11.35).³¹ Many of these paintings are known only from small fragments, but preliminary observations suggest that many plants represented in Pompeian paintings are seen throughout the empire: laurel, myrtle, pomegranate (Figure 17.4), oleander, quince or other apple-like fruits, and young trees, such as plane, oak, cypress, and pine.

MOSAICS

Plants are accurately depicted in the finer mosaics around the Roman Empire, and these have allowed scholars to more readily identify the common stylized examples.³² The important examples from the Vesuvian region are found in the niches of *nymphaea*, such as the fine example from Massa Lubrense on display at the Museo Archeologico della Penisola Sorrentina at Piano di Sorrento (Figures 11.17A; 11.17B). Here dwarfed trees, laurel, and other shrubs are shown in the finely crafted mosaic work.³³

During the reign of Hadrian, plants were popular in mosaic design throughout the Mediterranean. The most exceptional examples of vegetal representation are those of the third to fourth centuries AD from the North African province. While many are purely ornamental, others represent specific plants of gardens and fields. The cardoon, which is not found in Vesuvian wall paintings, appears often in Tunisian mosaics (Figure 17.5A). Also depicted are other vegetables, such as the bottle gourd (Figure 17.5B), and asparagus and many fruits, such as the citron (Figure 17.5C), pomegranate, quince (Figure 17.5D), date, olive, grape, and fig. These mosaics offer a spatial arrangement of carefully identified plants, from grapevines growing in craters, cypress and fruiting trees, to laurel and flowering shrubs. For example, the well-known mosaic of the aviary of Carthage (Figures 12.9A; 12.9B) depicts cut branches bearing olives, plums, apples, pear, pomegranate, citron, quince, grapevine, together with laurel, pine cones, roses, daisies, carnations, lilies, jasmine, wildflowers, and even wheat. Also important are mosaics of cut

Figure 17.4 Still life painting with pomegranates, house II.1.12, Pompeii.



A

Figure 17.5A Cardoon, Utica, Tunisia, mosaic, now located in the Bardo Museum.



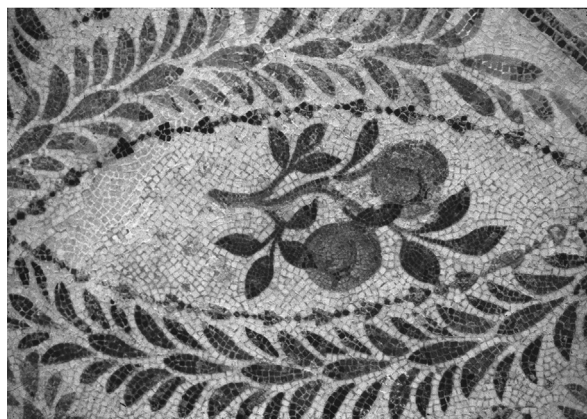
B

Figure 17.5B Bottle gourd, House of the Months, El-Jem, Tunisia, mosaic, now located in the Bardo Museum.



C

Figure 17.5C Citron, House of the Dionysiac Procession, El-Jem, Tunisia, mosaic.



D

Figure 17.5D Quince, House of the Dionysiac Procession, El-Jem, Tunisia, mosaic.

branches (Figures 12.1A; 12.1B; 12.1C), which offer a kind of catalog of ornamental and fragrant plants that were strewn across a floor. These are the combinations and plants mentioned in literary descriptions, such as that of Longus' *Daphnis and Chloe* (discussed in Chapter 10).

SCULPTURE

Sculptural reliefs represent a wide range of plants and are particularly valuable for providing religious, official, funerary, or other cultural contexts for the interpretation of plants. Sculpted craters, fountains, marble, and ceramic architectural decoration, altars, shrines, and funerary monuments appear in public and private gardens. As with painting, the Augustan monuments feature a high degree of fidelity and detail in the representation of plants, although fantastic *candelabra*, volutes, and other decorative forms were popular and equally finely rendered. The plants and vegetal motifs on the Ara Pacis are seen in other monuments of the Julio-Claudian and later periods around the empire. For example, the scene of the Tellus Mater on the Ara Pacis, surrounded by plants associated with fertility, such as clusters of poppies, and the reeds and plants of springs, is repeated in a plaque from Carthage, now in the Louvre.³⁴ Altars are rich in plant imagery. A triangular base for a tripod of the Augustan era depicts finely rendered laurels flanking a figure preparing a sacrifice at a round altar draped in garlands (Louvre inv. 358). Laurel is the plant closely linked to Augustus and is frequently and finely depicted, often in pairs, perhaps evoking those that flanked the door to his house on the Palatine.³⁵

The range of plants depicted in sculpture and architectural decoration around the

empire is, of course, vast, from the elaborate programs on imperial monuments, the abundant and carefully observed plants of the Ara Pacis in Rome,³⁶ and the Campana terracotta plaques that use palms and reeds to evoke Nilotic scenes, to modest tombstones depicting small offerings, realistically if less skillfully carved.³⁷ The small altar of Iulia Victorina (AD 75–100) from Rome, now in the Louvre, features a fine rendition of laurel with roosting birds (Louvre Cp 6225; Ma 1443). Sarcophagi from around the empire offer a range of carved plant motifs.³⁸ A great many reliefs provide images of sacred trees, such as oak, pine, or laurel. While these are typically represented as old and heavily pruned, young specimens had particular associations with vigor, as is perhaps seen in the stylized laurel trees and an oak leaf wreath that adorn a marble altar at the Temple of Vespasian at Pompeii (Figure 17.6). In other scenes the trees frame participants of processions in a manner that makes the trees appear to be part of the procession. Trees also serve as framing devices, as we see in the passion/tree sarcophagus from fourth-century Rome depicting biblical scenes and events separated by olive trees (Vat. 28591). A contemporary example from Arles depicts the wedding at Cana (FAN.92.00.2488). Such representations provide clues as to the cultural use of plants in a variety of religious, funerary, and landscape contexts.

VESSELS

Craters and other marble or bronze vessels were displayed in gardens and, in turn, sometimes featured finely rendered plant motifs. A crater featuring interlaced volutes rising from a base of acanthus was found near the tomb of Caecilia Metella in



Figure 17.6 Stylized laurel trees and oak wreath on marble altar, Temple of Vespasian, Pompeii.

Rome, although possibly associated with the nearby *horti* where it may have been featured in one of the gardens or courtyards. Its vegetal themes recall that of the Ara Pacis and may be part of a program of themes and figural language of official Augustan art.³⁹

SUMMARY

Whether in painted, tessellated, or sculpted form, we see that the representation of plants in art offered multiple functions. Most plants in the cultures of the Roman Empire had local cultural and religious associations, familiar to the viewer, which infused the reading of altars, funerary monuments, and building

decor. Other plants came to be associated with the imperial cult and contributed to readings of official programs in architecture, art, and coinage that were understood throughout the empire. The laurel, palm, myrtle, ivy, acanthus, and rose were particularly popular in this regard. In art associated with theater and oral traditions, certain trees and plants had strong regional associations and were used to establish the setting for specific scenes of comedy and drama. For example, the palm signified the Nile or other locations in Egypt, as well as in Arabia or Judaea. The distinctive silhouette of the umbrella pine signified Italy (Figure 17.7) and that of Cedar of Lebanon and the plane tree suggested eastern royal or Persian luxury. In some instances, the artistic representations of plants are offering simple displays of the abundant products of a villa garden within representations of seasons or the agricultural year. As our knowledge of plants from excavated gardens increases, we will be better able to see how this range of associations played out in actual gardens. The developing science of archaeological botany, discussed below, is critical to understanding the art of Roman gardens.

Botanical and Other Environmental Remains

Remains of plant material found in excavations furnish indisputable evidence for plants that were grown, or at least used, in Rome and its provinces.⁴⁰ It is rare to find macro-remains of garden plants, but it is not impossible. Furthermore, retrieval of plants from non-garden contexts contributes to an understanding of plant use in a region, critical to the interpretation of



Figure 17.7 Villa painting with cypresses and pines in silhouette, detail, announcing the presence of *viridaria* in the villa to viewers from the sea, House of the Small Fountain, vi. viii.23, Pompeii.

gardens. At the time of this publication, the systematic retrieval of environmental remains on classical sites is not yet standard practice on most excavations in the Mediterranean, although it is more common in northern Europe. As a result, our discussion is confined to techniques that are showing promise, followed later in this chapter by a survey of archaeobotany around the Roman Empire, with a brief review of the involvement of archaeobotany in urban and designed landscapes of the region.

Gardens are not only ancient forms of art and places of cultivation; they are also ecosystems. Study of Roman plants involves the study of the garden's ecology, preserved through floral, faunal, and inorganic forms of evidence at the macro- and microscopic scales.

PLANT MACRO-REMAINS

Plant macro-remains are preserved in a variety of ways. The most common is through carbonization. In general, few

gardens burn catastrophically *in situ*, although there are important exceptions, notably, those in the region buried by the eruption of Mt. Vesuvius in AD 79. Even there *carbonization* of plants during the eruption itself is haphazard. The towns closest to Vesuvius feature assemblages of plants carbonized at the time of the eruption, whereas Stabiae and sites at the periphery do not. At the Villa San Marco, the leaf of a plane tree was preserved as a cast in particularly fine volcanic ash, but such examples are rare.⁴¹ In more typical preservation conditions, the carbonized plants found have been introduced to the garden as fertilizer from fuel, food debris, and other rubbish that was burned. In principle, there is the potential to find prunings and the remains of garden plants burned off by the gardener and returned to the soil, but instances of such practice are not yet well documented. When plants are burned, many of the parts usually used for botanical identification have been destroyed. Although the careful retrieval

of carbonized plants, through flotation and wet-sieving of soil samples, often yields disappointing results in terms of garden plants, the remains contribute contextual evidence of local cultivation practices that are, in turn, useful to the study of gardens.

In the deserts of Africa and Asia, as well as tombs and protected areas of other arid sites, plants are preserved through *desiccation*. The dedicatory foodstuffs of the Pharaonic tombs of the pyramids are the best-known examples, but similar evidence has emerged for the Roman era in Egypt, Masada in Judaea, and in particular circumstances of preservation elsewhere.

In the ditches of the northern provinces, as well as the wells, harbors, marshes, and coastal sites around the empire, *water-logging* in anaerobic conditions helps to preserve plants. As discussed below, clippings and leaves of box from deposits in England, for example, have suggested the presence of nearby gardens.⁴² Rich deposits of plant material from the Roman levels of the harbor at Carthage are discussed below and large deposits from Caesarea Maritima may one day shed further light on the movement of trees, shrubs, and food plants, including those grown in garden contexts around the Mediterranean.

Mineralization happens in certain soil conditions, and most commonly in latrines, which are often located near gardens. Minerals slowly replace the organic matter of the plant but its characteristic form is preserved. Alessandra Celant reported remains of “mummified” rose (*Rosa* sp.) found *in situ* in the Templum Pacis excavations in Rome, discussed below.⁴³

The challenge of using macro-remains to determine the plants of a region lies in determining whether the fruit, nuts,

seeds, or wood came in as imported produce (grown elsewhere) or whether the plant was grown in the area. Furthermore, in garden archaeology, it is necessary to ascertain whether a plant is from a specific garden, so one must differentiate between plants that were imported as foodstuffs, consumed, and deposited in the garden as debris or fertilizer from remains of garden plants preserved *in situ* or as clippings, burned off and redeposited by the gardener. To make these determinations, the archaeological botanist must either recognize plants that would not normally be part of an imported product, or find evidence of the plant in the record of pollen, phytoliths, diatoms, or aDNA at the site. Literary sources documenting the presence of plants cultivated in the region are also of value, though rare.

PLANT MICRO-REMAINS: POLLEN, PHYTOLITHS, DIATOMS, ETC.

Plant micro-remains are an essential source of information about the plants grown in a region. Each type of evidence has its strengths and limitations for understanding the specific plants of a garden.⁴⁴

Pollen

Generally, the most abundant pollen remains are from wind-pollinated species in the region of the garden. Many garden plants are insect-pollinated and do not produce abundant pollen. Thus it is rare to find such pollen in the archaeological record – but not impossible. Wilhelmina Jashemski pioneered the use of palynology in the Vesuvian area, with varying degrees of success. Ultimately, however, a sufficient pollen record for the area, taken

both from lake cores and from garden sites, makes the Pompeii region one of the “most intensively studied gardens of the world.”⁴⁵

Archaeologists have debated the value of pollen as a standard method of gathering data on garden plants. Eberhard Gröger noted that pollen is not a reliable indicator of the plants of a garden, often because the pollen most abundantly represented is windborne and could come from long distances.⁴⁶ Yet, as Currie notes, “it seems that garden soils create their own microenvironments that make pre-judgement on survival unwise.”⁴⁷ Pollen evidence has offered important insights at Hadrian’s Villa, Pompeii, and the Horti Luculliani in Rome. The new technique of extracting pollen from the plasters of garden features, mentioned above, is particularly promising and has the potential to become an important strategy in isolating the pollen of a specific site or garden. Dafna Langgut extracted pollen from the plasters of walls and features surrounding a Persian-era garden at Ramat Rachel, near Jerusalem, theorizing that plastering is often undertaken in the spring, when many plants are producing pollen. She detected species that must have been in the garden, as their pollen does not widely disperse.

Langgut has also applied the technique successfully to Herod the Great’s palace at Caesarea Maritima, finding preserved remains in a sample from a plastered column in the courtyard of the upper palace, where garden remains were not otherwise well preserved (Figure 17.8).⁴⁸

Phytoliths

Plant phytoliths are “particles of hydrated silica formed in the cells of living plants that are liberated from the cells upon death and decay of the plants.”⁴⁹ When the plant decays, these remains, many of which can now be identified taxonomically, endure in the soil. Not all plants produce phytoliths. While plant phytoliths in garden soils may characterize fertilizer or other additions, recent samples appear to represent plants that decayed in the garden itself.⁵⁰ Results are reported from Hadrian’s Villa at Tivoli.⁵¹ Remains of grass phytoliths have been found in samples from the walks of the Great Peristyle of the Villa Arianna at Stabiae (Figure 17.9), offering preliminary evidence for turf.⁵² Phytoliths from palms have been found at samples from garden beds at the Pool and Garden Complex at Petra,⁵³ as well as from the garden beds at Stabiae.

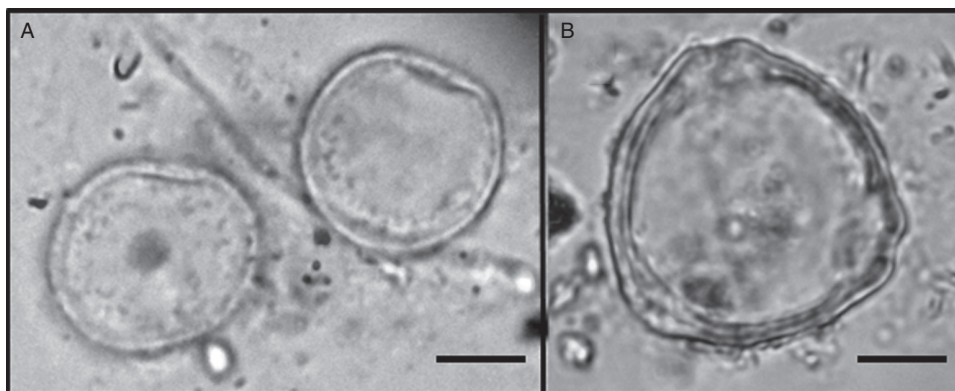


Figure 17.8 Pollen grains extracted from the base of the north-east column in the palace courtyard in Caesarea Maritima. A Two pollen grains of *Cupressaceae*. B *Corylus* sp. pollen. Each bar = 10 μ m.



Figure 17.9 View of planting bed with densely spaced root cavities in the Great Peristyle of the Villa Arianna at Stabiae.

Diatoms

Diatoms are single-cell algae, which preserve well in the sediments of ponds and lakes, and may even be preserved in the larger pools and basins of Roman gardens. Diatoms have been used to determine if water is salt or fresh, as well as how placid it may be.⁵⁴ These have yet to be extensively studied in Roman garden contexts, although Carlos Cordova has examined samples from the Petra Garden and Pool Complex, finding diatoms, together with sponges and grass phytoliths, that suggest a well-irrigated environment.⁵⁵

Mollusks

Plant remains are limited in their ability to convey the height and density of shrubs and trees, as the Romans had many ways

of clipping and shaping plants above ground. The study of land snails gives us an additional piece of evidence, as each variety of these small creatures prefers a particular habitat, whether it be low and sunny on annual plants near to the ground, or higher up in the canopy of shrubs and trees. Mollusks also lend additional ecological data on soil moisture, exposure, etc. Ezequiel Pinto Guillaume's studies of mollusks from the Villa of Livia at Prima Porta and the Villa loc. Santa Maria at Lake Nemi, Italy, have contributed to our understanding of those gardens and are now being applied to other sites around the Roman Empire.⁵⁶ For example, mollusks retrieved from two large garden beds in the Great Peristyle of the Villa Arianna at Stabiae were mapped to indicate relatively dry versus more heavily irrigated areas of the garden.⁵⁷ Mollusks also provide evidence of environmental change over time near water features, as well as larger landscapes along a lake or coastline. This type of evidence has been applied to the study of Lake Avernus, as well as to other sites around the empire.⁵⁸

Genomic Studies

Ancient DNA (aDNA) can be retrieved from waterlogged, dessicated, and frozen remains, and in some instances from carbonized samples. DNA can be helpful in identifying plants where diagnostic features are poorly preserved or when only the family or genus can be determined. Furthermore, DNA can contribute important information on genomic regions and species diversity, which can allow botanists to establish how an introduced plant became established in a region over time. Such studies have been undertaken on Roman fruit tree species north of the Alps,

where DNA has helped to identify the origins of these introduced plants, based on analysis of alleles or haplotypes known to reflect a geographically structured distribution.⁵⁹

RECENT SCHOLARSHIP

We turn now to a discussion of the state of scholarship in Roman archaeobotany in the different regions and provinces of the Roman Empire and the conclusions that have recently been reached, particularly those of relevance to gardens. This section begins with Italy, moves through Europe and Asia, and concludes with Africa.

The contribution of archaeobotany begins, minimally, with simple lists of plants, and we highlight those that may be of significance to garden studies. Other areas have well-established archaeobotanical knowledge for much earlier periods and offer a foundation of knowledge about plant cultivation and importation, but suggest little about plants of the Roman era. In the most developed areas of archaeobotany, we begin to see the patterns of plant consumption, trade, and cultivation in the Roman period. With a good pollen and macrobotanical record, it is possible to compare the data to determine whether plants were cultivated in the area or whether they are likely to have only been imported as foodstuffs, medicines, wood, craft or construction materials, or other wood products. In the most current studies of plant genetics, archaeobotanists are not only providing close identification of plants but also are demonstrating how gardeners and farmers in Italy and the provinces endeavored to acclimatize

imported plants to their region. Finally, we will see discrete projects that have provided useful results for specific kinds of sites, practices, or comparisons with ancient literary evidence.

Italy and the Mediterranean Coastal Areas

Archaeological evidence for the role of plants in gardens is relatively well developed for Italy but elsewhere the archaeobotany of urbanism has yet to be synthesized.⁶⁰ A vegetation history of Italy in the Roman period based on archaeological assemblages remains unavailable, although Rottoli has published a valuable bibliography.⁶¹ The most important studies Wilhelmina Jashemski knew outside of the Vesuvian region were those of agricultural landscapes at Settefinestre.⁶² A synthesis is needed for archaeobotanical studies, pulling together the field data and bibliographies for various projects.⁶³

In the region of Rome and Campania, archaeobotanists have successfully identified plants of Roman gardens, if to a limited extent. Furthermore, ceramic planting pots (*ollae perforatae*) and preserved planting pits are abundant in gardens of this area, allowing the identification of plant locations within gardens even when the exact species of plant is not known. At Pompeii, Wilhelmina Jashemski pioneered the systematic sampling and identification of pollen and wood by using a scanning electron microscope, as well as the flotation of soil samples to recover carbonized plant remains. The eruption of Mt. Vesuvius created a wide variety of preservation circumstances in the gardens she inspected, rather than a reliable and

constant state of preservation of plants. At Oplontis, she tried a sampling grid for pollen over a large area of the north garden, only to have her palynologist, G. W. Dimbleby, stop her after no results were found; yet in other areas at Oplontis pollen was found but in concentrations too low to permit certain identification of garden plants.⁶⁴ This remains the case today. In some locations plant remains are found carbonized or mineralized after the eruption, while carbonized plants retrieved from soil samples are largely typical of those from Roman gardens around the empire, typically containing burned or mineralized food waste.

Wilhelmina Jashemski structured much of her study of gardens around the documentation of root cavities in the soil of the garden. In some instances, the root cavities were distinctive, such as in the case of staked vines or oleander. However, roots are not used by botanists to identify plants, so she turned to the extensive practical experience of Carlo Fideghelli, who had spent his career studying diseases of the roots of fruit trees. He published no scientific papers on this work, as it relied on his experience rather than scientific method. However, his informed assessment narrowed the range of possibilities. In recent years, her method has been somewhat misunderstood. However, she systematically cast the root cavities, proposing a marker for the size and location of the roots for future study, and offering notes and specialist observation during that key moment of discovery that, as in all archaeological excavation, can never be replicated.

Ultimately, Jashemski found it impossible to assemble a uniform “toolkit” of techniques that would work for all Roman

gardens. Rather, each site had specific preservation opportunities and problems she addressed in recovering, recording, and interpreting the evidence. A comprehensive catalog of the plants she found in her work was assembled in the *Natural History of Pompeii*, together with studies of regional pollen and other environmental studies.

The region buried by Mt. Vesuvius continues to foster scholarship on the botany of Roman gardens. Since the conclusion of Wilhelmina Jashemski’s fieldwork in 1983, the Superintendency has exposed the garden and a “hanging garden” of the House of the Chaste Lovers (IX.12.6–7).⁶⁵ In both gardens, pollen was successfully retrieved, representing an impressive variety of trees, shrubs, and climbing plants, as well as herbaceous plants. The excavators conclude that it is difficult to determine which plants grew in the garden and which grew nearby, but they propose that umbrella pine and juniper grew in the complex, and the hanging garden may have had a kind of meadow composed of herbs typical of the area.⁶⁶ There have also been studies in the Temple of Venus, and stratigraphic excavations in the House of the Greek Epigram.⁶⁷ Archaeologists have studied the *viridarium* of House v.4.3,⁶⁸ where, among other remains, they have identified myrtle, which might have formed the garden hedge, and charcoal from fruit trees of the subfamilies *Maloideae* and *Prunoideae*.

The newly exposed garden of the Great Peristyle at the Villa Arianna at Stabia has produced a variety of plant remains in the form of pollen, phytoliths, charcoal, and root cavities, as well as carbonized plants. Phytoliths, identified from samples taken along the walks and beds, indicate the

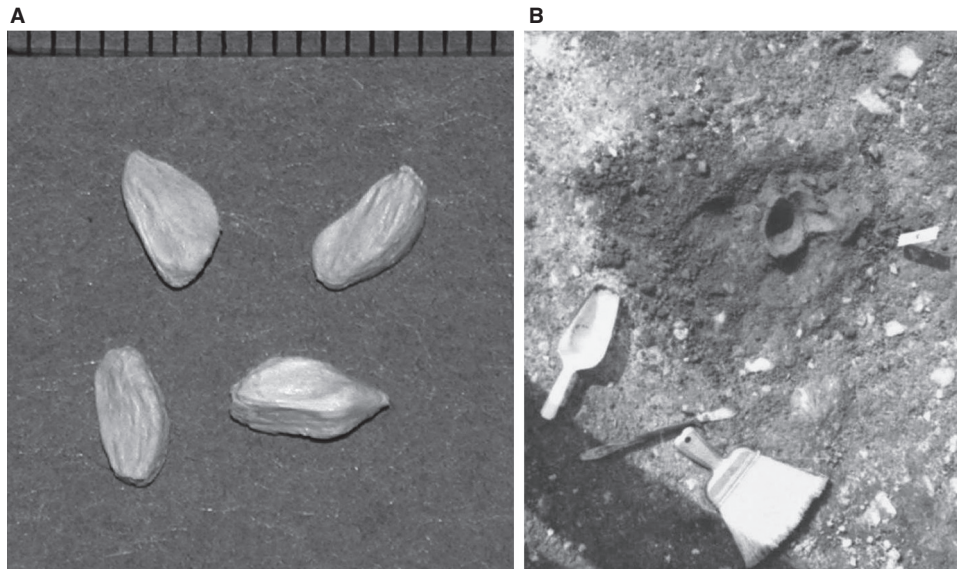


Figure 17.10 A
"Mummified" remains of
Rosa from the Templum
Pacis; B the archaeological
remains of the planting pit
with half-amphora.

likelihood of turf on the paths, as well as palm trees in the beds. The carbonized remains are of fuel and food debris. The garden features approximately 250 root cavities, representing shade and fruit trees, multistemmed shrubs, and herbaceous plants (Figure 17.10).⁶⁹ Mark Robinson's work has pioneered botanical studies from stratigraphic excavation, rarely done given the well-preserved surfaces at Pompeii.⁷⁰ However, once archaeologists move beneath the surface preserved by the eruption, the preservation is not extraordinary and the problems of interpreting identified plant remains are similar to those found at Roman sites elsewhere around the Mediterranean.

New questions about plant use have also been addressed for Pompeii, such as horticultural practices, medicinal uses, and funeral offerings.⁷¹ These studies have been summarized by Ciaraldi, who has brought her work with microscopic remains to the study of the ancient city from the sixth century BC through the time of the eruption of AD 79.⁷² Emilia Allevato and Gaetano di Pasquale have

summarized archaeobotanical data from the north slope of Mt. Vesuvius, offering a picture of managed woodland, cultivation, and agricultural production on the slopes of the mountain.⁷³ Michele Borgongino has worked on the vegetal remains of Pompeii and the surrounding area. Finally, Annamaria Ciarallo of the Superintendency has published her observations on ancient plants for the benefit of the public.⁷⁴

Outside of the Vesuvian region, archaeobotany has been undertaken on garden sites from the Prima Porta excavations and the recovery of some of the plants used in the later years of Horace's Sabine Villa⁷⁵ to garden research at Hadrian's Villa, where potted plants and exotic finds complement the Egyptian style of the Antinoeion.⁷⁶ Archaeobotanical retrieval was also undertaken in the peristyle gardens at the Villa at loc. Santa Maria near Lago di Nemi, revealing more about the fertilizer than garden plants.⁷⁷ In Rome, the center of the empire, plants of the Horti Luculliani have been identified.⁷⁸ We also have the extraordinary discovery of rose remains

in the garden of the *Templum Pacis*, one of the imperial *fora* (Figure 17.10).⁷⁹ These remains, associated with planting pots *in situ*, have helped to reconstruct the ancient appearance of the whole temple precinct, regarded in antiquity as one of the most beautiful in the city. Systematic archaeobotanical retrieval was conducted on the east Palatine, although no gardens were identified.⁸⁰

The Provinces of Europe

In the northern provinces, the period of Romanization is marked by the introduction of a wide variety of plants cultivated in the Mediterranean. The fig and olive could not stand the cold winters, nor could the umbrella pine, which furnished the popular pine kernels and, along with the cypress, provided the distinctive silhouette that signaled from a distance a Roman *viridarium*. The myrtle, laurel, and rosemary, so popular in Italian ornamental gardens, grew only in warm areas. The box, however, could stand a cooler climate, and grew well in Britain and Germany, as could the cornel cherry. The large number of varieties of Mediterranean plants available made it possible to find some that would thrive in quite different soils, climates, and exposures.

There has been lively discussion as to whether evidence of vineyards is conclusive for Britain and Germania inferior (the Lower Rhine province).⁸¹ Good commercial systems made it possible to import wine, raisins, dried figs, pine cones/kernels, wine, and olive oil, as well as some spices and medicinal plants. Dates, which could not ripen in Europe – except, according to Pliny,⁸² in one small region in

Spain – were imported from the warmer provinces. These are all represented in the archaeological record, but only evidence from texts, pollen, or remains of the non-commercial parts of the plant can confirm that they were grown in the gardens of the region in which they were found.

HISPANIA

Archaeobotanists in Spain are rapidly increasing the data on the plants of the ancient Roman Hispanic provinces.⁸³ The evidence, as Peña-Chocarro points out, comes from across the entire peninsula.⁸⁴ An interesting report comes from the Roman town of Oiasso (modern Irun, in Basque country), situated in an area between the Ebro Valley, the Pyrenees, and the Cantabric Sea, where archaeobotanical evidence indicates plants and fruit trees common in Roman kitchen gardens.⁸⁵ Unfortunately, as the authors of the study point out, the data are generally insufficient to distinguish whether fruit remains are Roman imported goods or examples of local cultivation. In addition to fruit trees, evidence from the ancient town of Ilerda (modern Lleida in Catalonia) indicates that vine cultivation in Roman times expanded and new plants, like celery and fennel, appear to have been introduced.⁸⁶

BRITANNIA

Early work on Romano-British palaeoethnobotany relevant to garden studies was first summarized by Barry Cunliffe in 1979.⁸⁷ Pollen studies from his excavations at Fishbourne had not produced evidence of any plants that could be convincingly linked to gardens. J. R. A. Greig noted that the unfavorable combination of gravel and clay soils, together with

the Roman practices of trimming hedges and cultivating insect-pollinated species, were factors.⁸⁸ However, organic materials found in a stream bed outside of the villa, an area thought to be a designed landscape, were identified by Greig as hazel, willow, ash, fir, oak, and blackberry, an assemblage that reflects the composition of the coastal strip today. Of particular note is the work of Clement Reid, who collected and studied waterlogged sediments from wells and rubbish pits during the excavation of the Roman town of Calleva Atrebatum (Silchester) between 1890 and 1909. Beginning in 1900, he published annually a list of the plants identified from seeds and pollen.⁸⁹ This list has been augmented by the identification of plants in similar deposits found during the excavation of towns, villas, and forts throughout Britain. Camilla Dickson⁹⁰ summarized and critically evaluated this evidence in 1991, noting forty-three different plants that may have been grown in orchards or gardens.⁹¹ Marijke van der Veen, Alexandra Livarda, and Alistair Hill have provided a recent assessment – reviewing plants introduced by the Romans, as well as their dispersal, and suggesting who may have had access to the new resources.⁹²

GAUL

Crossing the channel from Britain to the Loess belt of modern France, Belgium, the Netherlands, and German Rhineland, we find a good review by Corrie Bakels of the agrarian history of the region before and during the Roman period.⁹³ There have been nearly one hundred reports of botanical evidence from Gaul, and while many assemblages are too small to be representative, great regional variation is seen in

the evidence overall. As in many areas, the Iron Age archaeobotany is better understood than that of the Roman period. While this research is helpful in knowing the plants in use preceding Roman rule, in many regions data for a rigorous comparison unfortunately remain insufficient. Archaeobotanical evidence at the villa of Selongey and the villa de Richebourg in Gaul attest to the culture of fruit trees and viticulture.⁹⁴ Rescue excavations in Horbourg-Wihr retrieved concentrations of fruit pits and shells in rectangular pits dating from the first to the third centuries AD. These were thought to be either latrines or material being stored for fertilizer.⁹⁵

GERMANIA

The evidence recovered in the Lower Rhine region in Germany is especially rich. Karl-Heinz Knörzer studied plant material from more than 250 excavated settlements dating from the Neolithic period to modern times. From the excavations of fifty-eight Roman settlements, he obtained soil samples, rich with non-carbonized plant remains, from latrines, refuse pits, and other contexts. He identified sixty-three cultivated plant species dating to the Roman era, compared with only twenty-two species in the preceding eight hundred years. The Roman conquerors had imported cultivated plants from the south, among them seventeen cultivated fruit trees, berries, and nuts. This marks the beginning of fruit cultivation in the Lower Rhine district. Knörzer also identified the carbonized remains of imported foods, which illustrate the good commercial relations between the Rhineland and the Mediterranean countries. Rice, olives, figs, dates, and pine nuts, from plants that

could not survive the severe winters of the north, were imported.⁹⁶

This evidence has been assessed by Corrie Bakels and Stefanie Jacomet in conjunction with a wide range of palaeo-ethnobotanical finds from central Europe. While their work specifically considers luxury plants that were not grown in these provinces, they note instances where the botanical remains suggest that efforts were made to do so, successfully or not.⁹⁷ As Günther Thüry has pointed out, the data available for other parts of central Europe are still too scarce for good reviews.⁹⁸ To hypothesize about plants that might have grown in Austria Romana, for example, the corpus of evidence from Switzerland,⁹⁹ Germany, France, and Britain has to be used.¹⁰⁰

In the available reports, we see that the Romans considerably increased the known range of plants available in the northern provinces. As stated above, some of the plants most prominent in ornamental gardens in the Mediterranean do not survive in gardens farther north, but archaeological evidence suggests that attempts were made to grow at least some of those plants where possible. Both Britain and Germany successfully cultivated the box and a variety of herbs popular in Italian gardens.¹⁰¹ A reassessment of some box leaves from a *villa rustica* of the Rhineland even shows possible signs of clipping (Figures 17.11A, 17.11B).¹⁰²

Of course, in return, northern plants were brought to Rome from the temperate climates, such as a fine alpine specimen shown in the garden painting at Prima Porta.¹⁰³ We also know from literary sources that Emperor Tiberius loved to eat *siser* from the Rhine river.¹⁰⁴ As he himself had spent some years in the Northwest when

fighting against the German tribes from 4 to 6 BC, he started to like the root vegetable so much that he asked for yearly imports. The identification of the *siser* is still much discussed but we might consider parsnip (*Pastinaca sativa*),¹⁰⁵ whose wild forms are widely distributed over temperate Europe and Turkey but which are archaeobotanically only rarely identified.¹⁰⁶ The variety from the Rhine river was regarded to be rather hardy and thus Romans tried to cultivate it in the South, supposedly with limited success. It will be interesting in the coming years to better document the influence of the northern provinces on the archaeobotanical record in Italy. Those who have moved from the dry summers of the Mediterranean to the startling lush greens of the temperate North can well imagine that Romans sought to bring some of that verdancy back home.

PANNONIA

Many of the same developments we have outlined for the northwestern provinces can be seen in the Roman province of Pannonia, the western part of modern Hungary. With the Romans many new garden plants arrived in the area, at least up to the river Danube. The archaeobotanist Ferenc Gyulai writes: “today’s orchards and vineyards trace their ancestry back to Roman foundations.”¹⁰⁷

Overall, the presence of fruit stones indicating the cultivation of cherries, plums, and peaches in the northwest of Europe is now regarded as a sign of Roman culture. Their presence in northern Spain is also likely to have relied upon the expertise associated with other aspects of Romanized agriculture indicated by new crop and garden plants.



Figure 17.11A Boxwood leaves with clipping marks from a *villa rustica* of Weisweiler.

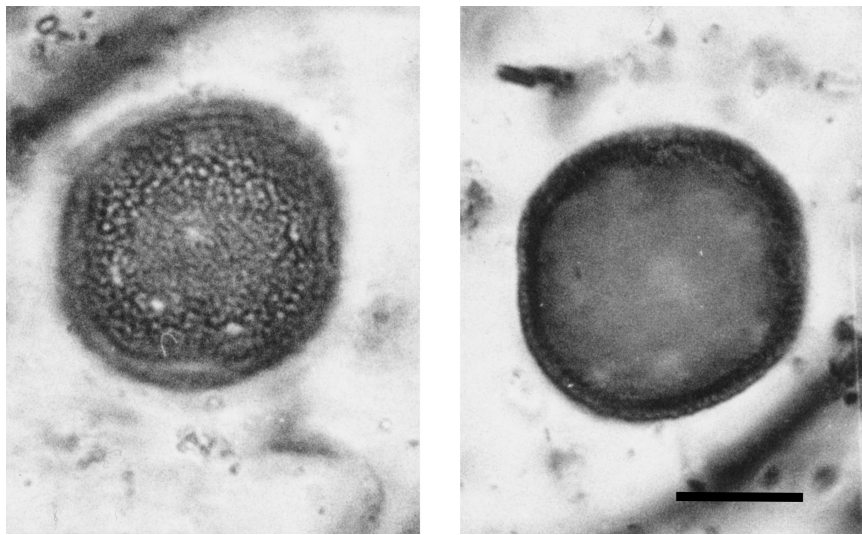


Figure 17.11B Boxwood pollen.

THE BALKANS

Archaeobotanical findings from the Roman provinces of the Balkan peninsula are still rare, although investigations of the emergence of agriculture in earlier eras in some areas are beginning to provide a picture of plants long cultivated at the time of Roman conquest.

Data from Greece have been systematically summarized through the Hellenistic period by Fragkiska Megaloudi and, most recently, Alexandra Livarda.¹⁰⁸ Both surveys emphasize the insufficient evidence from the Hellenistic and Roman levels in Greece to offer even a hypothesis about local agriculture, plant introduction and

usage, or comparisons with earlier eras. Plants used in Hellenistic funeral ritual, however, include many that were likely to have been grown nearby, so these ritual offerings may provide circumstantial evidence of local cultivation.¹⁰⁹

In Croatia (the Roman provinces of Illyricum, then Pannonia and Dalmatia), Renata Šoštarić is gaining insight on Roman-period related plant finds. Remains such as those from the Roman port at Zaton near Zadar (Dalmatia) provide important contextual information and will help to tell us more in the future about the plant trade in Roman times and plants grown locally in Croatian gardens.¹¹⁰ Two

reports from modern Serbia date mainly to the Late Antiquity/early Byzantine periods. These primarily concern cereals and legumes, one from the Late Antique fort of Viminacium (site of Svetinja), one from ancient Felix Romuliana (modern Gamzigrad).¹¹¹

In Slovenia, in addition to a few older archaeobotanical reports for the Roman period, exciting new research at the ancient settlement of Nauportus (modern Vrhnika) is being conducted by Tjaša Tolar.¹¹²

The Provinces of Asia

Ancient texts recount the eastern Mediterranean origins of many of the plants the Romans knew in Italy. Several of these arrived with Greek settlers or during the Hellenistic period, but their eastern origin was not forgotten. Perhaps the most iconic of these in literary sources is the plane tree.¹¹³ Other plants were eagerly brought home from the Asian conquests, even displayed as booty in triumphs,¹¹⁴ and cultivated as climate permitted.

ASIA MINOR, SYRIA, AND JUDAEA

Asia Minor was regarded by Greek and Roman sources as one of the places where wine and saffron crocus originated, as well as the locus for exchange of plant and garden knowledge between Greeks and Persians, and later, Romans and Persians.¹¹⁵

The archaeobotany of Anatolia was last surveyed by Mark Nesbitt in 1996, at which time some thirty archaeobotanists were working on sites dating from the early origins of agriculture in the tenth century

BC to the pre-Classical periods. As many of these projects focus on tells, medieval finds are also reported.¹¹⁶ However, systematic archaeobotanical recovery from Classical sites is rare. Of these, pre-Roman remains have been studied from specific contexts at Miletus, Sardis, Troy, and Gordion. Sagalassos, discussed below, is the exception and model. Although it is not yet possible to sketch an overview for the Hellenistic and Roman periods, we can look at the rich contributions offered by specific projects underway at sites such as Sagalassos, Sardis, Aphrodisias, and Gordion. Given the rich range of plants documented for the pre-Roman period, it will be valuable to compare Hellenistic and Roman remains for insights on how various plants came to be known, in the texts, as originating in specific areas of this region.

The first project to investigate the vegetation of a designed landscape of the Roman era in Asia Minor recently took place at Aphrodisias (Geyre, Turkey), where the South Agora (215 × 70 m) has proven to be a large public park focusing on a central pool flanked by linear planting beds.¹¹⁷ Remains of a palm leaf in the sediments of the pool suggest that Cretan palms may have been planted in the beds, as mentioned in an inscription of Artemidorus Pedias, who promised to “adorn a palm grove with a statue of Hermes, and a gilded Aphrodite with Erotes holding lamps on either side and a marble Eros in front.”¹¹⁸

Apparently the first program of systematic recovery of archaeobotanical remains in a classical city has occurred recently at Sagalassos, a late Hellenistic and Roman settlement. The plant macro-remains recovered by a team under the direction

of Thijs Van Thuyne are being compared with regional pollen analyses carried out by Marleen Vermoere. Among the trees that may have been cultivated in garden or park settings, as well as orchards, are almond, hazel, walnut, pine tree (most probably imported), and possibly pistachio.¹¹⁹

Preservation of large assemblages of Lydian foodstuffs, carbonized *in situ* at Sardis, offers a particularly vivid portrait of pre-Roman plants in a domestic context.¹²⁰ Identification of carbonized plant remains, mainly carbonized macro-remains found during excavations from the Roman period, has been made by Miller and Nesbitt.¹²¹ Pollen cores have been taken from lakes on the Hermes Plain and Mt. Tmolus, offering a valuable contextual record for future studies. Similarly, the tombs from Gordion, as well as systematic botanical retrieval at the site by Naomi F. Miller, show the richness of plant resources available to the kings of Asia Minor.¹²²

The situation is similar for Syria. For the Roman era, texts remain the primary source of knowledge of plants for gardens, although archaeological botany will ultimately be a richer source of knowledge when the Roman levels of archaeological sites are more fully assessed.¹²³ Pliny speaks of the Syrian jujube (*ziziphus*),¹²⁴ which had just recently come to Italy,¹²⁵ the date and the pistachio, several varieties of figs, and the damson plum and the sebesten (*Cordia myxa*),¹²⁶ both from Syria and, in the first century AD, grown in Italy.¹²⁷

As discussed above, Judaea/Palestine offers a wide range of evidence from texts, such as the Bible and Talmud. According to these texts, the region was known for

its excellent produce, such as the balsam, dates, pears, Persian nuts, and many other fruits that had been introduced during or before the Hellenistic age. Excellent fruit was grown around the Sea of Galilee.¹²⁸ Archaeobotanical evidence from the pre-historic periods shows the long history of plants in the region. In recent years, the Hasmonean and Herodian sites have been more systematically sampled. Gleason has conducted archaeobotanical studies of garden sites of Herod the Great, generally finding that the macro-remains represented amendments to the garden soil.¹²⁹ As noted above, new strategies for the use of pollen evidence to determine garden plants are now being applied to Roman sites by D. Langgut. Cypress and hazelnut are among the plants identified in the upper courtyard of Herod's maritime palace, where gardens are not otherwise preserved (Figure 17.8).¹³⁰ Jennifer Ramsay has studied botanical remains systematically collected from various excavations at Caesarea Maritima, including Herod's maritime villa.¹³¹ Dessicated plant remains, studied by Mordechai Kislev, and *amphorae* marked with imported and local produce were found at Herod's fortress palace at Masada overlooking the Dead Sea.¹³² The date palms of this region were prized for their variety in taste, and date pits are found ubiquitously during the excavations; however, it was a great surprise when a dessicated date pit from Masada, carbon 14 dated to the time of Herod, germinated in 2008 using a plant growth medium (Figure 17.12). Named "Methusala" when it first appeared, the plant is a healthy male Judaeian palm, an extinct variety related to the Egyptian palm.¹³³

The deserts of this area and Arabia Petraea were renowned for their trade in,



Figure 17.12 “Methusala,” a male Judaeen palm grown from a desiccated seed from Masada.

and production of, aromatic plants. The evidence has been surveyed by Erickson-Gini and Yigal Israel.¹³⁴ The famous balsam of Judaea, grown in *paradeisoi* near the Dead Sea, has continued to elude certain archaeobotanical identification, but recent attention has been devoted to solving the mystery.¹³⁵

ARABIA PETRAEA

Botanical studies are emerging from recent excavations in Arabia. In addition to the phytoliths of palm mentioned above, Ramsay has published the first macrobotanical findings from the Petra Pool and Garden Project.¹³⁶ The samples appear to represent amendments to the soil rather than garden plants, consisting of cereals (barley and wheats), common weeds, and seeds of fruits and nuts (olive, grape, fig, date, walnut) that are likely to represent foodstuffs. She notes the need

for irrigation, if these crops are grown in the area, and points to the discovery of a vineyard at Beidha.¹³⁷

The Provinces of Africa

In the provinces of Africa, the Romans knew of well-established agriculture long before acquiring these territories. Pliny the Elder and other Latin authors cite Mago, an important agricultural writer from Carthage, although his works are not otherwise preserved. The potential of these areas was further exploited by the Romans with provision of water from aqueducts, such as the Zaghouan aqueduct, which fed Carthage. Archaeobotanical studies in Africa are beginning to be carried out on a regional basis, and assemblages have been systematically retrieved at selected sites in Libya, Tunisia, and Egypt.

Egypt is an exception to the general archaeobotanical picture of northern Africa, having a long, unique tradition of agriculture and being one of the key distribution networks for trade with Southeast Asia and East Africa, surveyed recently by René Cappers in the publication of Berenike and Marijke van der Veen at Quseir al-Qadim.¹³⁸ Bagnall gives a valuable list of the plants and trees grown in Egypt that are mentioned in the Greek papyri or otherwise attested, particularly from excavations.¹³⁹ A large collection of dessicated plant remains of known provenience in the Manchester Museum in England includes a corpus of unpublished Roman-era garlands from Petrie's excavations in the Fayum. The garlands include imported plants as well as those that might have been grown in plant nurseries: lotus and East Indian lotus (*Nymphaea lotus* and *Nelumbo nucifera*), pomegranate, rose, Egyptian acacia (*Acacia nilotica*), marjoram, rennet berries (*Withania somnifera*), chrysanthemum (*Chrysanthemum coronarium*), narcissus, and date palm fruits.¹⁴⁰ Large pieces of unidentified resin from Hawara are also in the Roman collection of the Manchester Museum. Dessicated plant remains from Ptolemaic and Graeco-Roman sites have been contributed to the museums and were recently cataloged by Cappers and Hamdy.¹⁴¹ Studying garlands, Hamdy notes that rose, myrtle, and rose of heaven appear to have been added to the repertoire of garland plants in the Graeco-Roman period.¹⁴²

Archaeological excavations of Roman gardens in North Africa were first conducted by Wilhelmina Jashemski at Thurburbo Maius. She found root cavities, but no archaeobotanical remains that could help her identify the plants. Her interpretations were based on plants in

texts, inscriptions, and mosaics. Although gardens have been identified elsewhere, we do not have archaeobotanical reports of plant remains that can be directly linked to any known sites of gardens. As elsewhere, with sufficient evidence we can compare the macroscopic remains with the pollen record to ascertain if plants were grown locally or imported.

This level of assessment has been conducted at Carthage, Tunisia (Roman province of Africa Proconsularis, Africa Vetus, Africa Zeugitana). Plant macro-remains from the Punic, Roman, and Byzantine eras at Carthage have been compared to ancient pollen samples, allowing us to discern which plants were cultivated locally versus those imported from elsewhere as foodstuffs. Among trees that could be grown in gardens are fig, olive, plum, grapes, almonds, and pomegranates, as well as crop plants such as artichoke, melon/cucumber, pea, and manna ash. Popular garden trees such as umbrella pine, hazelnut, and walnut can only be confirmed as imported food products. Although absence of evidence is not conclusive, it is also striking that no remains of date or palm have been seen for any period in the archaeological record of Carthage.¹⁴³

Even in the sub-desert region of the Ghirza and Libyan valleys, run-off agriculture permitted a range of Mediterranean plants to be grown from the first to third centuries AD.¹⁴⁴ These include olives, vines, figs, and almonds, as well as the crop plants of cereals and pulses.

CONCLUSION

Recent archaeobotanical recovery of plant remains from all contexts in

archaeological excavations has demonstrated the potential to allow us to determine the plants grown in the area of a site, rather than simply imported as food-stuffs. Such judgment is made possible by the recovery of processing remains as well as parts of the edible plant and by comparing the plant macro-remains with an assessment of plant micro-remains of the area. Genetic studies have the potential to refine this comparison further to assess how plants were adapted to a region.

The known cultivation requirements of these plants make it possible to ascertain which were grown in orchards and gardens. Although it is difficult at this time to know the plants of a specific garden, having a general picture of the garden

plants of a region enables us to better interpret its garden culture, as well as to provide more nuanced reconstructions of gardens. The available syntheses also show the extent to which the same plants were grown throughout the provinces, climatic conditions permitting, and the extent to which plants raised by the pre-Roman inhabitants continued in favor. Many cultures, including the Roman, did not give up their traditional foods, which often were tied to their cultural identity and practices, but simply added new and varied items. Current archaeobotanical studies are showing specific ways in which both the Romans and their imperial subjects benefited from the extensive plant trade and distribution systems of the empire.

Chapter 18

CONCLUSIONS: NEW PERSPECTIVES ON THE ROMAN GARDEN

Kathryn L. Gleason, Kim J. Hartswick,
Amina-Aïcha Malek, and Michele A. Palmer

*The garden is the smallest parcel of the world and then it is the
totality of the world.*

MICHEL FOUCAULT, HETEROTOPIA

WILHELMINA JASHEMSKI'S GREAT contributions, as discussed in the Introduction, were made primarily at Pompeii and other sites buried by the eruption of Vesuvius.¹ There she began to explore Roman daily life through a close study of the texts, art, and artifacts, but most importantly, through observation of the garden surfaces preserved under the volcanic cinders (*lapilli*). Although these conditions in the Vesuvian area are unique, she nonetheless encouraged development of a systematic archaeological approach to garden sites throughout the Roman world.² She hoped, therefore, that this, her final publication, would contribute to the cultural history and archaeology of all Roman gardens, regardless of their locations.

Since Jashemski conceived the intellectual structure of this book, the number of publications on Roman garden culture and garden archaeology has increased considerably, with more appearing each year. As a result, in 2009, the editors revisited the organization of this volume, updating and adding new chapters, although the essential structure remains as she envisioned it: scholarly essays

on the types, experiences, and making of Roman gardens and designed landscapes (Volume 1) and a catalog of all known gardens throughout the Roman Empire (Volume 2).

Gardens of the Roman Empire marks the launch of a new trajectory in the study of Roman gardens. The essays chart important current and new directions in understanding and conceptualizing ancient gardens, while the wealth of information in the catalog has the capacity to strengthen or completely redirect the future course of this field. The catalog, unlike the essays, is an interactive, digital publication, and therefore it is offered as an invitation for collaboration and as a resource for future study of ancient Roman gardens. Published as a free, open-access reference tool, it identifies not only sites that are currently under expert analysis but, perhaps more importantly, the gardens and other designed landscapes yet to be excavated. We seek new entries and updates at any time, following directions published in the catalog.

The essays and catalog were completed simultaneously, so Wilhelmina Jashemski, the editors, and the authors of the essays did not have the opportunity to thoroughly study and synthesize the contents of the catalog, comprising some fifteen hundred garden sites. Full assessment of this archaeological data is the work for future scholars, as it is clear that regional variations need to be better understood: while Rome provided a common syntax for gardens and landscapes, these rules and processes were manipulated to respond to a local vernacular of garden designs, climate differences, the skills of a particular designer, and the complex agendas of the patrons or clients.

GARDEN TERMINOLOGY

Recent scholarship is re-evaluating terms used by Roman writers for gardens and designed landscapes, and archaeological investigations and the scholarship in *Gardens of the Roman Empire* are further illuminating our understanding of these ancient concepts. The translation of ancient terms into English can lend the appearance of being straightforward but we must always keep in mind not only our chronological distance from the past but also our cultural differences. We are in a time when gardens are not as profoundly integrated into intellectual discourse as they were in antiquity. It is thus all too easy to assume that Latin words are to be understood simply or literally in defining gardens or cultivated plots of land. For example, *hortus*, which is appropriately translated into English as “garden,” could refer to any garden, but it also evoked ancient values about Republican Roman gardens in the face of luxurious new garden trends of the second and first centuries BC. *Viridiarium*, emerging only in the first century BC, translated simply as a place of greenery, was also a term rich in cultural meaning. Only through a close study of texts and art, in relationship with the ecological and spatial evidence from archaeology, can we break through the apparent simplicity of these terms to better understand their complexity of scales, designs, and varied meanings.

In an early draft of this book, Wilhelmina Jashemski provided a discussion of key ancient terms used in the essays. We have chosen a selection of these terms to reflect on the advances gained from the studies of texts, art, and archaeological remains

reported in these essays, entries from the catalog, and recent scholarship.

Hortus/Horti

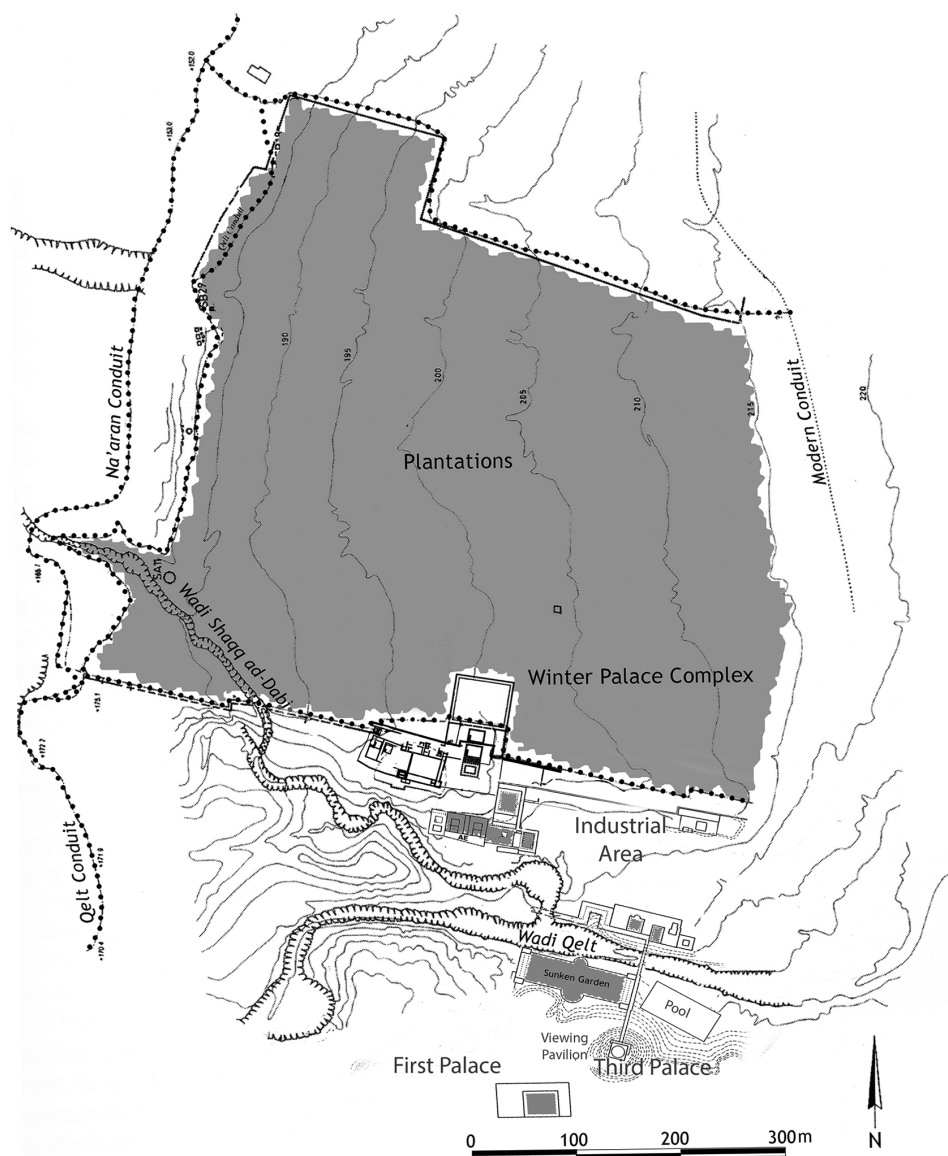
Romans used the word *hortus* for any enclosure for plants – an ornamental garden, pleasure garden, fruit garden, orchard, kitchen garden, vineyard, or tomb garden. Pliny informs us, as quoted in our Introduction, that in the Twelve Tables (a set of statutes compiled in the mid-fifth century BC), the word *hortus* denoted the *heredium*, the family estate or farm, but that in his day the term *horti* was used for farms and luxurious villas within the city of Rome. As Hartswick, Bodet, and Meyer have shown, this passage summarizes what is evident in the texts – that the word *hortus* could be used to describe many types of gardens over time. But the passage also alerts us to the role of luxury in altering this tradition. A *hortus* was, dependably, the term for the Republican-era vegetable or market garden (in modern parlance), with all the values of utility and hard work associated with it. These values stood in contrast to the luxuries of the Hellenistic and Persian royal gardens being emulated in Rome by generals returning from the eastern conquests in the late second and first centuries BC. By the mid-first century AD, however, the plural *horti* referred to complex assemblages of luxurious gardens, which archaeology has helped to clarify as places of experimentation – at enormous expense – of new architectural forms, water displays, curated art, and horticulture. For example, an inscription of AD 203, found at the Temple of Neptune in Lambaesis, refers to the institution or construction of

gardens (*horti instituti*).³ Field studies of this Algerian sanctuary have revealed terraces with associated porticoes and a temple built around the source of water for the city – enticing circumstantial evidence for possible gardens, which must have been present, as supported by the inscriptional evidence for them.⁴

Paradeisos/Paradeisoi

The association of extravagance with Rome's *horti* has long linked them to the eastern phenomenon of luxurious *paradeisoi*, royal gardens, and hunting parks in Asia Minor of the Persian satraps.⁵ Recent scholarship demonstrates the widespread use of the term *paradeisos* in Egypt and the eastern Mediterranean provinces by the Hellenistic period, with a range of meanings from cereal crops to royal groves, possibly differing regionally.⁶ In the province of Egypt, for example, the official term for gardens used in taxation documents was *paradeisos*; although, as Bagnall notes, this term did not include all cultivated areas, such as vineyards (*ampeloi*).⁷ In Asia Minor, *paradeisos* also appears in tax inscriptions, such as one from Sardis from the third century referring to two *paradeisoi*, which King Antioch had earlier given to a temple.⁸ However, as with earlier Greek sources referring to *paradeisoi* of the Persian satraps of the fifth and fourth centuries BC, the first-century AD historian Josephus Flavius uses this term to refer to luxuriant, as well as economically valuable, plantations and associated garden architecture, such as pools, pavilions, overlooks, and dining areas in Judaea (Palestina). Archaeologists, in fact, have recovered remains of the very

Figure 18.1A
Herodian palaces
near the irrigated,
cultivated area,
proposed to be the
paradeisos, plan.



Viridia/Viridiarium/Viridiaria

paradeisoi Josephus discussed, confirming the presence of these features at the second-century BC palace of Hyrcanus the Tobiad at Tyros (near Amman, Jordan).⁹ Likewise, he uses *paradeisos* to refer to a second- to first-century BC estate of the Hasmoneans and Herod at Jericho, with its palm and balsam groves, as well as luxurious recreational facilities north of the Dead Sea (discussed by Macaulay-Lewis) (see Figures 18.1A; 18.1B).¹⁰

Viridia means simply “greenness” or even “salad greens” but by the mid-first century AD, this unpretentious word was incorporated into a new term, *viridiarium* (pl. *viridiaria*), meaning not simply a generic “place of greens,” but more specifically a “place of specimen plants” artfully displayed in a garden setting.¹¹ Similarly, Josephus refers to a courtyard of Herod’s palace as *chloera* (an adjective for *hypaithra*: uncovered,

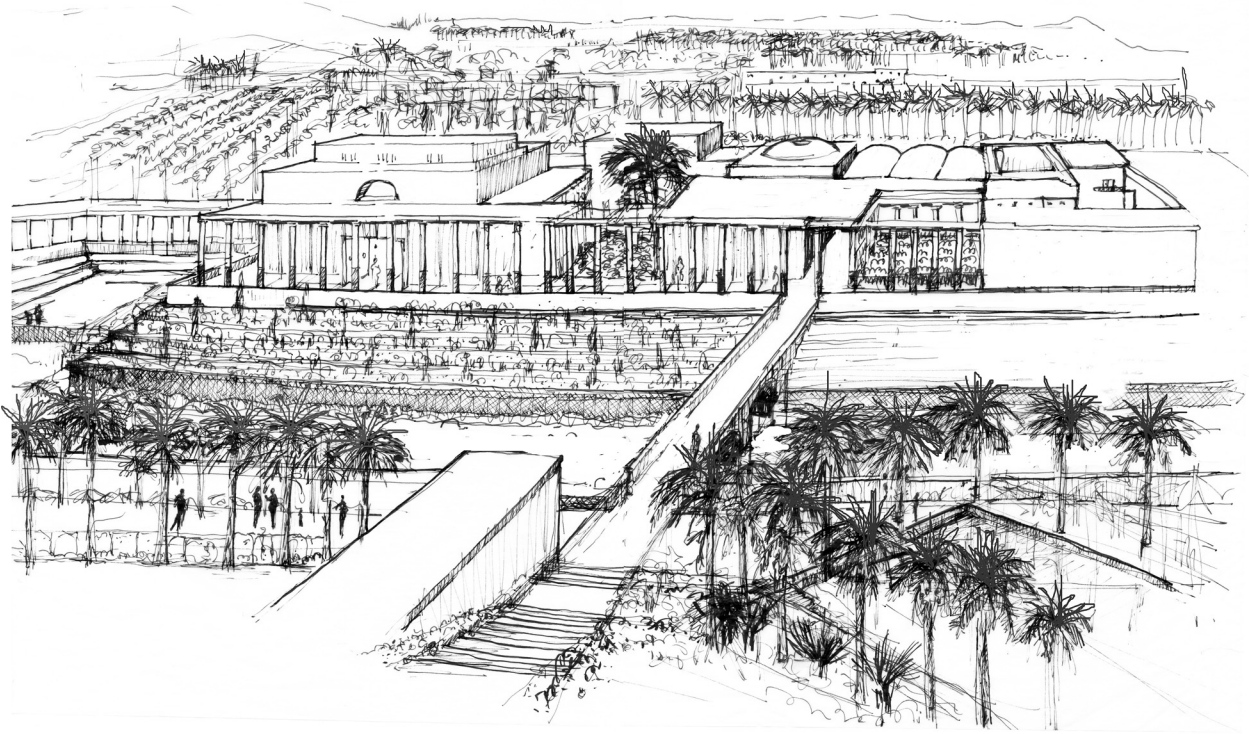


Figure 18.1B View from north of Wadi Qelt toward the earlier palace complex and associated *paradeisoi*.

open walks), which can be translated simply as “greensward” (grass-covered ground), but the context seems more pretentious, including expensive plantings meant for viewing while strolling – in other words a *viridiarium*.¹²

At the same time as the introduction of these terms into Roman discourse, *topiarius* appears as the maker of *viridaria*.¹³ His art was, therefore, called *ars topiaria*, which included not only our modern concept of topiary (the artful shaping of individual trees and shrubs) but also of the general designer of the garden as a whole. *Ars topiaria* literally translates as “place art,” alluding to the multivalent associations the *topiarius* could achieve with his garden designs.

As discussed in this volume, place could be evoked at any scale, reflecting

the Roman concept of *metonymia* (metaphor), imbuing independent objects or even an entire garden with allegory and narrative possibilities. So, metonymic associations could be prompted not only by the simple depiction of branches in a mosaic, or of a painted landscape, but also in the arrangement of plants, architecture, water, and sculpture in actual gardens, whether small peristyles or monumental porticoes. For example, an inscription of the third century AD found *in situ* at Timgad mentions a *viridiarium* together with embellishments of paintings, pools, and bronze barriers in one of the largest sanctuary complexes in North Africa.¹⁴ Such an elaborate assemblage of natural and manmade objects, artfully designed and displayed, as suggested by the term *viridiarium*, must have evoked more than

the sum of its parts. Likewise, when Seneca disparages the orator Musa for describing *viridiaria* as “sculpted forests” (*caelatae silvae*), the phrase was clearly rhetorical flourish but it was grounded on the capacity of gardens to evoke more than their physical realities.¹⁵

Xystus/Xysta

A *viridarium* was typically experienced through movement along a colonnade or open walks, which were likely bordered by trees and/or other greenery.¹⁶ Vitruvius made a distinction between a covered walkway (called a *xystus* [ξυστός] by the Greeks) and uncovered walks, which the Greeks called παραδρομίδες and the Romans called *xysta*. An inscription from Dougga (Africa) lists dedications of the stage of a theater, a basilica, portico, and *xystus*, implying that *xystus*, as something distinct from a portico, is an open walkway and suggesting, perhaps by association, *viridiaria*.¹⁷ Closer study of texts and archaeological evidence is needed, but clearly a *xystus* and *viridiaria* co-existed as walks and plantings, each term having the capacity to infer the presence of the other.

Other Terms for Cultivated Places

*Pomarium*¹⁸ designated the orchard (fruit and nut). The widespread cultivation of orchards, as revealed in ancient texts and archaeological evidence, particularly from the Vesuvian region, is discussed by Jashemski et al. in Chapters 4 and 17. Macaulay-Lewis points out the archaeological remains of a walled orchard

identified by Carandini at Settefinestre in Tuscany, and Bodel includes the productive value of *pomaria* in tomb gardens, imagining the descendants of the deceased “cultivating the fertile plots within the tomb enclosures in the same profitable manner as the neighboring orchard growers (*pomarii*) and market gardeners (*vilici hortorum*).” Bodel reminds us that Trimalchio’s description of fruit trees around his tomb reflected not only productivity, but also amenity. The simple presence of fruit trees, therefore, does not define the place as a working orchard, as we might assume today, nor is the term *pomerium* to be understood in purely a utilitarian sense.

Archaeobotanical evidence for specific plants found in orchards throughout the empire underlines both their economic importance and the Roman fascination with imported plants, grafting, and pruned plants known from ancient texts and in art. For example, the systematic recovery of plant macrobotanical remains, such as box clippings in Britain and Germany, reinforces the extent of the art of shaping plants. Plant micro-remains, including ancient DNA (aDNA), allow a better understanding of how fruit trees were imported by the Romans from conquered regions over long-distance trade networks, and then acclimatized through careful propagation to new areas of the empire, such as the Rhine Valley.¹⁹

The term *vinea* (grapevines) to describe grape-producing plants is another example of the possible multiscalar significance of garden terminology.²⁰ As Wilhelmina Jashemski found in her excavations at Pompeii and Oplontis, plantations of *vinea* could be similar to our modern concept of vineyards. But *vinea* also could imply a

more ornamental use, such as a grapevine trained over a pergola in a private garden, which would not, in English, be a vineyard. Similarly, a single prolific grapevine growing over the entire Porticus of Livia in Rome expressed the abundance of Augustus' reign, and Livia's association with Concordia.²¹ Vineyards, as Bodel reports, also could have been parts of tomb gardens, and examples may be seen on ancient marble plans, as well as at sites such as Scarfati in Pompeii.²² He notes that another term, *hymnapeus* (planted with vines), could refer to vineyards as well as to the popular practice of interplanting vineyards, orchard trees, or other crops.

Widespread representation of viticultural practices in wall paintings and mosaics can now be paired with archaeobotanical data to understand the culture of grape growing and winemaking in various provinces of the empire. The full range of evidence for vineyards and wine producing in the Roman world is beyond the scope of this book, but finds of outdoor *triclinia*, trellises, and other garden furnishings remind us to view actual vineyards, particularly those within city walls or close to residences, as places for relaxation and recreation, as well as for production.

The old Latin word *nemus* (pl. *nemora*) originally meant any secular or sacred grove or wood with much pastureland. But by the first century AD, *nemus* was also a term used for public plantings of trees in luxurious settings, such as the Porticus of Pompey, gardens in fine houses, or even on roofs.²³ In Rome, Augustus had planted the *Nemus Caesarum* around his naval lagoon on the Campus Martius in memory of his dead grandsons.²⁴ Pliny mentions that in one of Cicero's villas there

was a so-called Academia with a portico and a *nemus*.²⁵ *Lucus*, on the other hand, appears to have been reserved only for a wood, grove, or thicket of trees sacred to a deity.

Silva, generally thought to refer to natural woods, was used frequently for plantations of trees. Varro writes about his aviary having a large *silva* of trees planted around the house.²⁶ Horace comments on his friend, Aristius Fuscus, nurturing plantations (*silvae*) amid multicolored marble columns in a town house – obviously a peristyle garden.²⁷ *Silva* is the word Vitruvius used when he recommended the planting of plane trees between the colonnades in a palaestra.²⁸ In general, after the first century AD, *silva* and *nemus* were terms for gardens that had high-growing plants, such as trees, and were used interchangeably for both secular and sacred woods, with the adjective *sacra* for the latter.²⁹

The Romans commonly employed the term *hortus* to refer to a tomb garden, but the Greek term, *kepotaphion* or *kepotathon* (in Latin *cepotaphium* or its variants *cepotaphiolum*, *cepotafius*), from *kepos*, was also used. As Bodel points out in Chapter 8, *kepotaphion* “appears to have originated at Alexandria in the late Ptolemaic or early Roman period where it described a type of productive kitchen garden associated with tombs and characteristic already in the Augustan age (on Strabo's testimony) of the western garden suburb of Nekropolis.” Bodel concludes that the *kepotaphion* “was a local invention, without direct precedent in earlier Hellenic or Egyptian practice, a product of the distinctive fusion there of Greco-Egyptian culture, constrained topography, and metropolitan sprawl.”

This brief discussion on several Latin garden terms reveals two important points. First, the same word could be used broadly and also with considerable specificity, depending on context. For example, *silva* typically designated a wood, but Vitruvius used this word explicitly for plantings in a gymnasium. Second, gardens could be seen as composite features. *Horti*, in the plural, referred to a variety of luxurious garden assemblages, and *viridaria*, places of “green things,” could include *nemora*, *sylvae*, and other landscape features. Furthermore, none of the terms, unless modified, determine scale, and all gardens, regardless of size, could include larger landscapes and narratives. Close study of all known instances of garden terms in texts and inscriptions, together with their dates and distribution around the empire, has alerted us to the many underlying practices, meanings, and experiences yet to be brought to light.

THE CATALOG AND THE ARCHAEOLOGY OF ROMAN GARDENS

A preliminary investigation of the catalog reveals that nearly half of the entries are from the Vesuvian region. These gardens are distinctive for their incomparable surface preservation, visible clearly at the time the overlaying volcanic ash was removed and often for some years afterward. Thus, Wilhelmina Jashemski was not initially compelled to conduct stratigraphic excavation at Pompeii, but instead developed a system of investigation and analysis of the surfaces in order to extract information about these ancient gardens. Today, advances in

technologies, such as Ground Penetrating Radar, LIDAR (Light Imaging Detection and Radar), and new casting materials are being employed, particularly at other Vesuvian sites such as the Villa Arianna at Stabiae.³⁰ The decision to conduct stratigraphic excavation of Vesuvian gardens is not an easy one because of the valuable information on the surface that would be destroyed or altered by its removal. Over the years, however, as the garden surfaces have eroded, there are now opportunities for strategically placed stratigraphic excavations to occur.

While the majority of the gardens included in the catalog have not been scientifically excavated, those that have may serve as models for garden archaeology. The stratigraphic method of garden excavation was pioneered by Barry Cunliffe at the Roman villa of Fishbourne, and later synthesized by Gleason, who published recently a methodology for the non-destructive and stratigraphic excavation of gardens.³¹ Based on her own excavations, as well as those of archaeologists working, geographically and diachronically, on a range of garden sites, Gleason has demonstrated that most garden soils are brought to a site (rather than being native to it) and has identified three basic strata (Figures 18.2A, 18.2B) for any garden: its original surface, subsurface, and underlying surface.

The surface stratum (C) is the top of the garden soil layer that was originally exposed to the air and elements. The eruption of Mt. Vesuvius buried gardens of Pompeii and the Vesuvian region so rapidly that these surfaces lay relatively undisturbed over time, preserving soil contours and an abundance of evidence that Jashemski and others have been able

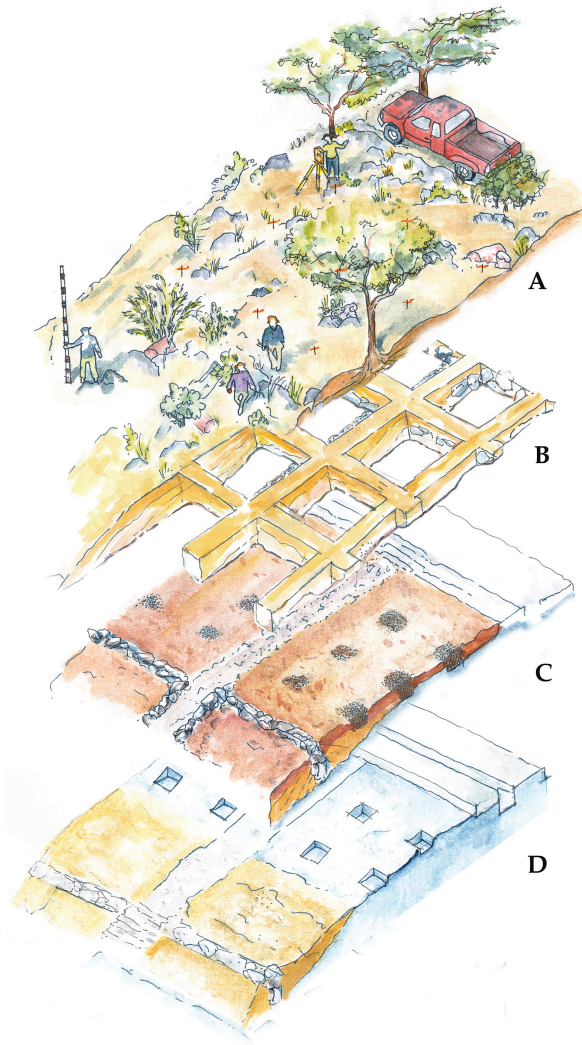


Figure 18.2 Layers of a garden excavation, watercolor, K. Gleason. A: Modern surface where survey, GPR, and LIDAR are first undertaken; B: layout of trenches using a grid system, which allows the archaeologist to study the soil in both plan and section to detect the ancient surfaces of a garden; C: the garden soil layer, showing soil discolorations of tree pits, as well as the subsurface features such as retaining walls; D: garden features cut into bedrock and leveling fills of the garden terrace.

to exploit. Such preservation of an original surface rarely occurs elsewhere; although it can – in principle – be found as a buried surface after one garden is suddenly covered by a later fill for a new garden, or other land use.

At most other Roman sites garden soils, when they have not been completely removed, are exposed by archaeologists to an approximated ancient surface (the subsurface), the level of which is determined by the relationship of this surface with the stratigraphic levels above as well as by nearby architectural features. In general, this surface represents what remains after the garden was abandoned, and the original living surface of the garden was removed by erosion or subsequent human activity. The subsurface of ancient Roman gardens is often recognized because of remains in the soil of well-worn bits of pot sherds, charcoal, shell, and bone. Planting pits, pipes, irrigation trenches, fertilizing practices, footings for garden furnishings, and even placement of sculptures or other decorative features may also lend support for the identification of a garden.

In many cases cultivated garden soil has not been preserved at all or not recognized as an artifact in itself, but only as the context for artifacts. As a result, these excavations proceeded down to bedrock without recognition of garden soil layers. Bedrock may, however, reveal evidence for gardens in the form of cuttings for tree pits, planting beds, water channels, drainage, pools, and other features. Sometimes the level immediately beneath garden soils is not bedrock, but rather a deliberate fill deposited over an earlier field, building, or, in monumental cases, destroyed neighborhoods.

This model of garden soil layers appears on actual archaeological sites in varied ways. For example, the gardens of Pompeii, Herculaneum, Boscoreale, Oplontis, and Stabiae were buried rapidly by a single event. Their garden surfaces, soil contours, walks, tree cavities, and ornamentation

were readily discovered intact under the volcanic ash or mudflows (Figure 18.3A). This situation contrasts with the Palatine Hill in Rome, where deeply stratified layers have revealed fragmented gardens formed over generations of continuous habitation (Figure 18.3B). The earliest levels of this palimpsest are remains of a peristyle garden of a luxurious house of the Republican period. Higher strata partially preserve the fill of an artificial terrace for a vast imperial garden. A century later, this Domitianic garden terrace was superseded by a sanctuary to Heliogabalus. In this case, the superposition of layers of garden remains, pertaining to a *domus*, a palace, and a sanctuary with their components – colonnades, barriers, basins, channels, and plantings – illustrates fundamental aspects of the Roman garden from the Republican period to the third century AD.

Throughout the Roman Empire, we see a range of sites, from desert gardens frozen in time after their aqueducts were destroyed, to urban *domus* or palatial sites, whose gardens are only attested by inscriptions, or pollen embedded in the plasters of their peristyles.

Gardens are the result of a symbiosis between nature and culture and, in archaeology, soil embodies this complex relationship. Roman gardens, by definition, are places carefully set apart from their surrounding environment, where a highly specialized ecology is maintained through constant intervention.³² Thus, as archaeologists, we look not only for what is referred to today as “landscaping,” ornamental planting and art set into the native ground, but, more importantly, for evidence of carefully designed and constructed ecologies that employed

Figure 18.3A Aerial image of Jashemski excavation at Oplontis. The view shows the well-preserved soil contours of the garden surface buried beneath the volcanic ash.





Figure 18.3B Aerial image taken in 1999 of the École française de Rome excavations on the Palatine, Rome, showing the palimpsest of superimposed garden levels.

terracing, imported soils and fills, extensive and expensive water systems, imported plants, artwork, and architecture. This definition calls attention to the biological dimensions of the garden, and while we have little evidence from the field to identify specific plants, we do possess a range of ecological evidence.

The archaeological evidence situates gardens and designed landscapes into the environment of Roman citizens and subjects of all classes and walks of life. As we have seen in this book of essays, the Roman's investment in this kind of landscape expresses many varied, often simultaneous, cultural desires for displaying power, ameliorating urban blight, creating infrastructure for cultural practices that expressed Roman identity, such as the Roman promenade, or *incessus*, as well as the many simpler joys and rituals of cultivating and living in a garden. Archaeological remains, while rarely preserving any trace of the vegetation that

captures our imagination, nonetheless provide clear evidence for the construction of and investment in these designed landscapes. If we don't understand "how things work," we may not be able to discover "what they mean."

Critical to the future of the study of Roman gardens is the rescuing of unexcavated sites before evidence disappears. When excavation is undertaken it needs to proceed carefully and, if possible, only partially, leaving areas available for future study. Prompt publication in international, in addition to local, journals is important for the advancement of the subject. Also, a team of local and international partners is invaluable in analyzing excavated materials such as subsoil and environmental plant and faunal remains, which may yield critical information that would otherwise be lost.

Wilhelmina Jashemski urgently stressed that the recreation of an ancient garden is not conservation.³³ Indeed, many of the

gardens presented in the catalog may now be of limited value archaeologically because of modern gardens planted before excavations were conducted. Replanting destroys evidence and, therefore, should be considered only after archaeological work is completed. Even then, garden archaeology and its associated technologies are still quite new and limited, and restoration should be partial. If a garden is to be replanted, the designer should be challenged to leave some areas conserved for future study when new methods can be applied. Creative use of geotextiles can limit the intrusion of modern plants into the archaeological soils of the ancient garden.

THE INTERDISCIPLINARY FUTURE OF GARDEN ARCHAEOLOGY

We would like to conclude with a point that was critical to Wilhelmina Jashemski's approach to the study of Roman gardens and a foundation of current garden archaeology. The making of Roman parks, vineyards, orchards, gardens, and designed landscapes was very rarely the effort of one person working alone, and thus their archaeology is by necessity a collective undertaking. Jashemski, as her Introduction to this volume attests, understood the necessity of working with other experts. Pedologists, geologists, volcanologists, horticulturalists, and others developed protocols and provided new perspectives on the meaning of what she was documenting. Through this collaborative approach, she succeeded in learning more about her

own excavations and to contextualize her site-based garden archaeology within the larger ecological and geological systems of the region of Campania.

Where scientific method had yet to be developed, as with root cavities, she sought out other experienced professionals for their opinion and guidance. She also critically assessed the regional knowledge available to her from her workmen and local farmers. Ultimately, Jashemski's collaborative approach, despite and because of the idiosyncratic character of the archaeological remains in the Pompeii area, has played an influential role in the development of methods of garden excavation in a wide range of other preservation conditions around the Mediterranean and Europe. Modern garden archaeology, no longer the nascent science of Jashemski's early work, is rapidly increasing our knowledge of these fragile yet enduring built environments.

In the same way that the understanding of garden terminology has evolved over time, the study and language of garden archaeology is also evolving due to the inclusion of new experts and specialists. In particular, the involvement of practicing landscape architects has emphasized the fully constructed nature of gardens and assisted in the interpretation and reconstruction of their remains, as described by Gleason and Palmer in this volume. The language they use to designate the materials and the constructed systems at work enriches archaeological terminology and illuminates aspects of the garden that would not have been considered otherwise.³⁴ Ultimately, a better understanding of the ancient built landscape more richly informs the interpretation

and presentation of archaeological sites in their modern settings, and we close with an example from the northern provinces.

The ancient site of Aventicum at Avenches, Switzerland represents such an interaction that has led to a richer interpretation of the ancient city and the importance of its open spaces (Figures 18.4A; 18.4B). A contemporary landscape architect's interpretation of the archaeological remains prompted the archaeologists to reassess their interpretation of the site, particularly the role of designed landscapes within the fabric of the ancient city. Olivier Lasserre, who is not trained in Roman archaeology, was charged with developing a master plan for an interpretive archaeological tour to explain the imbedded archaeological remains within the modern city.³⁵ Lasserre was asked to provide a sympathetic intervention that would be harmonious with both the modern habitation and the ancient ruins. To do so, he had to take into account the three areas of the ancient city: the densely urban

zone north of the forum, the forum itself, and the open area behind the theater that slopes down to a river. Given the appearance of the urban area north of the ancient forum, he left open a zone comprising a large sanctuary, its temple, and a theater.

The design proposal led archaeologists to question the role of green spaces of Aventicum, not only domestic gardens but also the use of vegetation in the public squares, in the sanctuaries, and at the gates of the city, where the necropoli were located. This reassessment also led to considering whether the terraced area at the back of the theater may also have been a green space in antiquity, created for appreciating the view of the ancient river. The landscape architect's design encouraged the archaeologists to imagine the sights an ancient traveler would have beheld, entering the city from the north through a monumental gate. This commanding view of the cityscape was not only of iconic Roman stone buildings but also of familiar types of fora, parks, and



Figure 18.4A Aerial view of Avenches.

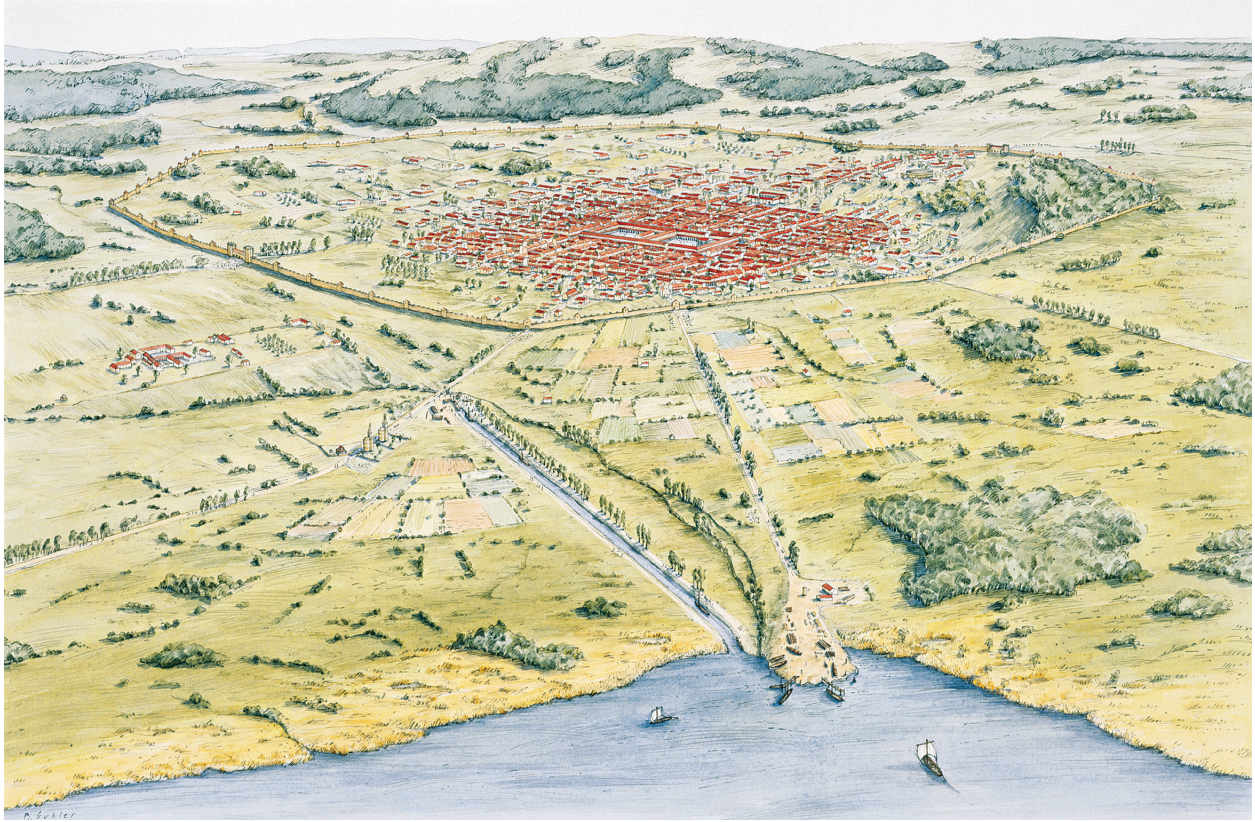


Figure 18.4B Roman city and landscape, Avenches, France, watercolor reconstruction.

gardens situated throughout the neighborhoods. The view of particular trees might have called attention to the important public, religious, and private spaces, and civic architecture, as well as provided a luxuriant expression of nature in the

heart of the city. To visitors this sequence of green spaces may have charted an engaging route through the city to the south gate and on to the road that led to Rome.

NOTES

INTRODUCTION

- 1 Purcell 1987a, de Caro 1994, Wallace-Hadrill 1998a, and, most recently, Landgren 2004 comparing their new readings of textual sources with her own views and definitions. She was very interested in the findings and analyses of these and other classicists and archaeologists, many of whom visited her and sent her copies of their work.
- 2 Pierre Grimal, in his third edition of *Les jardins romains* (Grimal 1984), felt his book needed no changes from its 1943 edition, except for one. He acknowledged that Wilhelmina had brought a new approach to textual study through her excavations at Pompeii. Wilhelmina particularly valued this acknowledgment. Pers. Comm. Wilhelmina Jashemski to Amina-Aïcha Malek, 2001.
- 3 A copy of the manuscript at the time of her death is available in the library of Dumbarton Oaks. Wilhelmina Jashemski's papers, including selected drafts of this book, are in the archives of the University of Maryland.
- 4 Certain material in this volume has appeared in earlier forms in other, less widely distributed publications.
- 5 Warscher 1929. For the full early bibliography I had encountered see Jashemski 1993.
- 6 These proved more extensive than I had first planned: Jashemski 1963, Jashemski 1979, Jashemski 1993, Jashemski 1999, Jashemski and Meyer 2002.
- 7 The journal articles produced from these excavations are extensive and are fully listed in the bibliographies of Jashemski 1979 and Jashemski 1993.
- 8 Dr. Foss then continued to work with us at Tivoli and Thuburbo Maius (Tunisia) and, later, with Kathryn Gleason at Horace's Villa (Licenza, Italy), Villa Santa Maria (Nemi, Italy), and with Leigh Ann Bedal at the Petra Pool and Garden Complex (Jordan).
- 9 This work culminated in Jashemski 2012.
- 10 Her unpublished *Memoirs*, now in the archives of the University of Maryland, have been edited, illustrated, and published at cost through Amazon by Clopper Almon as *Discovering the Gardens of Pompeii: Memoirs of a Garden Archaeologist: Wilhelmina F. Jashemski*. Create Space Independent Publishing Platform, Dec. 22, 2014.
- 11 All of the papers were published in MacDougall and Jashemski 1981.
- 12 Jashemski 1992a.
- 13 MacDougall 1987.
- 14 Contributors are named in a summary at the start of the catalog.
- 15 Kathryn Gleason organized the conference with Ann Kuttner and Christopher Pastore with the support of John Dixon Hunt (Landscape Architecture), Renata Holod (History of Art), and Jeremy Sabloff (Director of the Museum).
- 16 These essays are not part of *Gardens of the Roman Empire*, but their content is largely covered in Jashemski and Meyer 2002.
- 17 Malek 2013: Her chapter on the history of garden archaeology provides a useful expansion of this discussion on Roman gardens. The Society for

Garden Archaeology, initiated by Michel Conan at Dumbarton Oaks in 2004, was incorporated as a society by Kathryn Gleason and Michele Palmer in 2009. It will be publically launched with the publication of *Gardens of the Roman Empire*.

- 18 Jashemski 2012.
- 19 See above, note 10.
- 20 Upon the death of Wilhelmina Jashemski, unillustrated drafts of these chapters and the catalog were widely distributed on the internet without permission of the contributing authors by a well-meaning colleague and were subsequently removed. A draft of the volume at the time of Wilhelmina Jashemski's death may be viewed in hard copy at the Dumbarton Oaks Library.
- 21 We appreciate the initial guidance that Ron Musto and Eileen Gardener of the Council of Learned Societies provided as we developed the concept for the formatting of the book.

CHAPTER 1

- 1 Mazois 1821–4; Mazois 1824; Mazois 1825–6; Pinon 1982.
- 2 This essay is the result of a continuing study of the pertinent literature and ever-increasing archaeological evidence for the ancient Roman *domus* and villa. Special thanks go to Amina-Aïcha Malek, whose sensitivity to architecture aided me greatly. The patient insistence of Clopper Almon brought me back to this work when other tasks took me away from gardens. Finally, to Kim J. Hartswick for his sound advice during the difficult task of final editing, I give my sincere appreciation. My final thanks go to my wife, Marianne, who read and reread this text and follows my intellectual peregrinations in the *domus* of the Mediterranean.
- 3 Morvillez 2014.
- 4 Bruno and Scott 1993, 99–152, figs. 36–7. See also Fentress 2003a, 14–23 for the Republican phase of the House of Diana, an *atrium* house on the forum at Cosa excavated in the 1990s; this phase dates to the second century BC; pp. 34–8 for its Augustan phase; and 38–55 for its Julio-Claudian phase.
- 5 Pliny the Elder introduces in a idyllic manner his chapter on the history of gardens with remarks about the primary *hortus*: “At Rome, on the other hand, the garden constituted of itself the poor man's field, and it was from the garden that the lower classes procured their daily food – an aliment how guiltlessly obtained!” He further writes: “Cato, we find, speaks in high praise of garden cabbages: indeed, it was according to their respective methods of garden cultivation that the agriculturists of early times were appreciated, and it was immediately concluded that it was a sign of a woman being a bad and careless manager of her family, when the kitchen garden (*hortus*) – for this was looked upon as the woman's department more particularly – was negligently cultivated; as in such case her only resource was, of course, the shambles or the herb market” (Pliny, *HN* 19.52; 57).
- 6 Grimal 1984, 31–4; 41–6; 62–3. Pliny, *HN* 19.21.59: *Iam in fenestris suis plebs urbana in imagine hortorum cotidiana oculis rura praebebant, antequam praefigi prospectus omnes coegit multitudinis innumerae saeva latrocinatio*. “Indeed the lower classes in the city used to give their eyes a daily view of country scenes by means of imitation gardens in their windows, before the time when atrocious burglaries in countless numbers compelled them to bar out all the view with shutters” (trans. Rackham 1971). Cf. Linderski 2001, 305–8.
- 7 Vitruvius, *De Arch.* 6.5: *Nobilibus vero, qui honores magistratusque gerundo praestare debent officia civibus, facienda sunt vestibula regalia, alta atria, et peristyla amplissima, silvae, ambulationesque laxiores, ad decorem maiestatis perfectae*.
- 8 Gros 2001, 45–52 demonstrates the link between Hellenistic architecture, *gymnasia*, and aristocratic residences in the eastern Mediterranean. See also Pesando 1997, 268–72 and Pesando and Guidobaldi 2006a, 39–53. For the gardens see Jashemski 1993, 145–6.
- 9 For the architectural study see Stroock et al. 1991; Gros 2001, 42–3, figs. 25–6; Pesando 1997, 78–80; and Pesando and Guidobaldi 2006a, 87–94. About the garden, see Jashemski 1993, 145–6.
- 10 Maioli 2000, 176, 181–2.
- 11 Zaccaria Ruggiu 1983, 19–22; Froza 1985, 84–7; George 1997, 31, 33.
- 12 Guilhembet 1996, 185–97.
- 13 Born in Córdoba in 55 or 54 BC, he arrived in Rome as a young man, returning to Spain only in 13 BC. Possessing a prodigious memory, Seneca was urged by his sons to write about the controversies he had heard in Rome as a young man after the end of the Republic and before the middle of the Augustan period. Taking the form of court cases, these *controversiae* may have been merely rhetorical demonstrations but, however exaggerated, they must have rung true to his readers.
- 14 Sen., *Controv.* 5.5.
- 15 Papi 1998, 59–60 cites various sources.
- 16 It also had four precious columns of Hymettus marble. Valerius Maximus (9.1.4) tells the same anecdote, keeping the same price for the house, but giving the number of ten trees, see Marzano 2007, 99. On this house, see *LTUR* 2, 128.
- 17 Rackham 1971.
- 18 Papi 1998, 49–63.
- 19 Papi 1998, 49–63, figs. 1–2, sectional view, figs. 3–4, fountain, fig. 7; Gros 2001, 76, figs. 66–7.

- 20 Estimated according to the ideal proportions of an *atrium* by Vitruvius: Coarelli 1989, 178–87 and Papi 1995, fig. 8.
- 21 Gros 2001, 72–7. On the re-studied house on the Via Sacra and the Palatine, see Papi, 1998, 45–70. He stresses the rapidity with which luxury developed. According to Pliny, *HN* 36.109, the house of M. Aemilius was the most beautiful in Rome in 78 BC but only thirty-five years later one hundred homes had surpassed it. Also, see Guilhembet and Royo 2008.
- 22 For the details of the excavations see J.-P. Morel's archaeological chronicles in MEFRA from 1986 to 1999; Morel 1996; Morel in Villedieu 2001, 33–43; Morel and Villedieu 2002; Villedieu et al. 2001, 58–66 describe the house as luxuriously decorated with wall paintings and they note that fragments of gold leaf, shells (*murex*), and blue-glass *tesserae* used usually in mural or fountain mosaics were found in the excavation. The owner was probably close to the Imperial court. Apparently built poorly, the house collapsed perhaps as the result of a landslide at the end the Neronian period. All the precious materials were then looted. For the latest interpretation of the chronology see Villedieu in Tomei 2006, 58–66, especially 58.
- 23 Guilhembet 1996, 194–5.
- 24 Cic., *Att.* 2.4.7; *Att.* 4.10.2.
- 25 Cic., *Brut.* 10: *inambularem in xysto et essem otiosus domi*. Papi 1998, 59–60 has usefully brought together all these passages.
- 26 These houses disappeared in the Neronian period to be replaced by smaller buildings. Delaval 1994 and Delaval 1996. Chomer and Le Mer 2007, 539–40 and plan 534, fig. 483.
- 27 Vit., *De Arch.* 6.5.1. Gros 2001, 82–90 comments on the middle-class housing and the absence of *atria*. On the *atrium* and its transformation see Zaccaria Ruggiu 1995, 350–82.
- 28 George 1998, 82–100.
- 29 Mirabella Roberti (1953, 209–43), in order to connect this house to the classic Italic house, had hypothesized an *atrium* in the center (reconstructed with a rectangular *impluvium* drawn in the center), thus making it an “*atrium*-peristyle house.” The axial reception room, which he then naturally calls a *tablinum*, was flanked, in his interpretation, by two *cubicula*. See also Mirabella Roberti 1987, 359–60 and pl. 1.
- 30 Jashemski 1993, 54, no. 83, plan 15.
- 31 Jashemski 1993, 26, no. 13, plan 6.
- 32 Jashemski 1993, 158, no. 301; 153, plan 5.
- 33 Jashemski 1993, 22–3, no. 5, plan 5.
- 34 Jashemski 1993, 64, no. 108, plan 19; Jashemski 1979, 45, fig. 30.
- 35 Jashemski 1993, 102, no. 157, plan 33.
- 36 Five heads of herms, a frog, five statuettes of Egyptian divinities, alabaster basins now in the National Museum in Naples. In the northwest corner of the same house, another space (b), more apart, served as a light well to triclinium (c). Jashemski 1993, 218, no. 445; 216, plan 81.
- 37 The organization of the central part is unknown. On the Symmachi *domus* see Ensoli and La Rocca 2001, 149–51 with bibliography following; Pavolini 2006, 84–6.
- 38 *LTUR* 2, 119, figs. 39–40, 411.
- 39 *LTUR* 2, 146–47, fig. 43–4, 413. A large cryptoporticus is also mentioned.
- 40 Gros 2001, 119–20, figs. 112–13.
- 41 House of C. Plinius Caecilius Secundus, *LTUR* 2, 158–9, fig. 47, 415 (lost during the Renaissance period: Rodriguez Almeida 1980, 80, 88).
- 42 Gatti 1899, 157; Cimino and Le Pera 1997, 26–9, fig. 17.
- 43 North Italy: see George 1997 with bibliography and Ghedini and Anibaletto 2012. Emilia-Romagna: Marini Calvani 2000; Maioli 2000 for architecture, and Scagliarini Corlàita 1981, 186–94, for decoration. Luni: Zaccaria Ruggiu 1983; Froza 1985. Ravenna: Maioli 1986. Brescia: Brogiolo et al. 2005. Sicily: Wilson 1990, 114–27, especially the Hellenistic-Roman quarter of Agrigento, Houses of Solunto, Tindari, Marsala, and Palermo (Piazza della Victoria).
- 44 Balil 1972; Balili 1991; Gros 2001, 137–44, 179–86, and bibliography; Blazquez 2001, 21–35; Aquilué and Monturiol 2005.
- 45 In the last decades there have been a number of relevant studies on the archaeology of southern Gaul: Gros et al. 1996; Guyon et al. 1998, esp. 261–75; Rivet et al. 2000, esp. 411–25; Gros 2001, 142–7, 156–64.
- 46 Balmelle 1996, 117–27.
- 47 For the rest of the Gaul see Morvillez 2006, 592–98; Vipard 2007, 227–79. Chassillan 2011c.
- 48 The emergence of the peristyle is noticeable later, from the second half of the second century; Gros 2001, 194–6; Wachter 1995, 388 and fig. 83; Perring 2002, 66–72, 154–5; for provinces corresponding to the area of Switzerland see Paulnier 1996, 99–115.
- 49 Brulet 1996, 73–97, with significant examples in Trier, Metz, and Cologne.
- 50 Thébert 1985. See the yet to be completed inventory of Rebuffat 1969 and Rebuffat 1974; for an updated version with earlier bibliography see Bullo and Ghedini 2003; Gros 2001, 165–78; for Late Antiquity see Ghedini and Bullo 2007, 337–66; and more recently, Carucci 2007.
- 51 For Kerkouane, see Fantar 1985 and Fantar 1998, 40–53, who discusses the so-called “House of the Columns” on Apotropaion Street no. 35, with a peristyle of four porticoes. There are other houses with courtyards of one, two, or three porticoes (49–51). See also Tang 2005, 103–4.

- 52 Thébert 1985, 309–11. Unfortunately, there is very little known about the Roman houses in the African provinces before the beginning of the second century AD.
- 53 Lassus 1966. See also Germain 1973, 59 and 65, including earlier references.
- 54 For domestic architecture in Greece, see Bonini 2006 and Wurmser 2008. For Late Antiquity see Sodini 1984 and Spieser 1984.
- 55 Ephesos: Thür 2005; Zimmermann et al. 2011; Zeugma: Kennedy and Bunbury 1998; Early 2003; Barbet 2005; Ergeç 2007; Abadie-Reynal 2008; Önal 2009; Abadie-Reynal and Ergeç 2012.
- 56 Balty 1984; Duval 1984, 447–70; Balty 1997; Morvillez 2004; Kondoleon 2000, 50–78; Gros 2001, 214–30; Galor and Waliszewski 2007; Sartre 2007. Antioche: Morvillez 2007, especially on gardens 63, 71–3. Palmyra: Gawlikowski 2007. Palestine: Meyers, 2007, especially 114–16; Weiss 2007. Alexandria: Majcherek 2007.
- 57 Morvillez 2007; Bonini 2006, 60–5 includes forty-two examples with paved court areas and only eighteen with plantings. See also Bonini 1986.
- 58 In Pompeii, House of Fortuna (IX.7.20), House of the Arches (I.17.4), the House of the Anchor (VI.10.7), an unnamed house (I.3.8): Jashemski 1993, 27, fig. 23; Richardson 1988, 224 points out that arcuated colonnades appear in Second Style wall paintings of the first century BC, for example, in the *lararium* frescoes in the House of the Menander at Pompeii. Few examples are known in Late Antique villas. In the vast peristyle of the villa at Pedrosa de la Vega (Palencia), the 4-meter-wide brick arches are supported by pilasters: Palol 1982, 17. In the Sicilian Patti Marina villa, the large courtyard (34 × 25.5 m) is surrounded by flattened arches on pilasters: Voza 1980–1, 690. On the origins and the development of this architectural aesthetic prior to Late Antiquity, see Guidobaldi 1995, 423–7.
- 59 For garden fences see Jashemski 1979, 49–51; Farrar 1998, 30–5; Ciarallo and Giordano 2012, 300–13; and Blanc 2014.
- 60 House of the Lovers (I.10.10–11). Jashemski 1993, 50, no. 69 notes: “square holes (6 × 10 × 3 cm), which are 0.42 and 1.06 m above the base of the columns and contain traces of wood and iron.” These are clearly visible on fig. 59, 50 and Jashemski 1979, 51, fig. 88. A gate gave access into the garden in the middle of the west portico. The type of protective barrier at the first floor of the portico is unknown.
- 61 Jashemski 1993, 107, no. 163 notes that nail holes suggest fences 0.55 meters high. There were no fences between the columns in front of the reception halls (*tablinum* and *triclinium*).
- 62 Jashemski 1993, 113, no. 180 observes a “vertical cut in the columns.”
- 63 Jashemski 1993, 133, no. 248.
- 64 Jashemski 1993, 137, no. 254.
- 65 Jashemski 1993, 181–2, no. 355 mentions that “nail holes and iron hooks in the columns show where a wooden fence had been built.”
- 66 Jashemski 1993, 186, no. 364 observes a “... wooden fence which was attached to the outside of the columns; two holes (0.50 and 0.98 m from the base of the columns).” These are clearly visible on page 187, fig. 219.
- 67 Jashemski 1993, no. 420 records: “Holes in the columns, with piece of metal still visible, showed where a fence had been attached to the outside of the columns ... 0.75 m from the floor.”
- 68 Jashemski 1993, 212, no. 429; 213, fig. 246 notes that: “The columns and pillars were apparently joined by a wooden fence except at the northeast corner where the intercolumniations were closed by a wall.”
- 69 Jashemski 1993, 216, no. 436 notes that: “a fence had been attached to the outside of the columns. The holes were 0.96 m and 0.44 m above the floor; some of the holes still contained pieces of metal that had attached the fence.”
- 70 Jashemski 1993, 244, no. 506 notes that at the House of the Centenary: “Cuts (78 × 6 cm; 2 cm deep) in the columns indicate where a wooden fence had been inserted between the columns.”
- 71 Jashemski 1993, 138, no. 259 notes: “five columns and two engaged columns ... were joined by a fence which had a wooden framework, probably filled with a diagonal lattice-work of canes.” The vertical thin cuts in the base of the columns are easily visible (139, fig. 153).
- 72 Jashemski 1993, 29, fig. 25 notes low walls between the columns of House I.4.2. Jashemski 1993, 35, no. 31, 34, fig. 35 further notes (I.6.7) Stefanus fullonica (previously a house) had a garden surrounded by a low wall, with marble facing on the top. She also observed (no. 35, 36) that in the House “dei Quadretti teatrali” (I.6.11), the low walls were unfinished at the time of the eruption and that the House of the Menander (I.10.1) was a subsequent addition (no. 64, 47, after A. Maiuri). She notes (no. 92, 56, fig. 64) the low wall in the House of Sutoria Primigenia (I.13.2), and a low wall in the House of the Ship Europa (I.15.3: no. 106, 61–2, fig. 69, 62). At the House of the Arches Jashemski notes a low wall in the south and west sides of the garden (66, no. 115). Jashemski also notes a low wall at the House of M. Terentius Eudoxus (147, no. 279); at the House degli Scenziati (VI.14.43: 151–2, no. 293) between the columns of the peristyle; at the House of Vedius Siricus between the columns of the peristyle (169, no. 316); at the House of Ganymede (VII.13.4), on three sides of the porticoes (197, no. 387); at the House of Fabius Rufus (VII, insula occidentalis

- 16–19), between pilasters and peristyle columns (203, no. 402; 202, fig. 236); and at the House of C. Cornelius Rufus (viii.4.33), only on the north and west sides (214, no. 435).
- 73 Jashemski 1993 (and following), 108, no. 168 notes that at the House of L. Caecilius Jucundus (v.1.26) there is a “low wall with a depression on the top for plants.” She notes (122–3, no. 211) that at the House of Apollo (vi.2.22/15), there is a low wall with a planting box on the top; she describes (126, no. 233) a low wall at Casa dei Fiori (vi.5.19); she states (138, no. 255) that at the House of the Centaur (vi.9.3–5) “on the north, east and south ... a low wall with a place for plants on the top”; she notes (147, no. 278) that at the House of the Gruppo dei Vasi di Vetri (vi.13.2) “the columns were joined by a low masonry wall which contained an area for plants, not preserved in the restoration.” She noted (164, no. 308) that at House vi.16.36 “the columns were connected by a low masonry wall, with a place in the top for planting.” She found (110, no. 170) the same organization in the *caupona* (v.2.4), with three sides having a low wall, the south one with planting space. She noted (234, no. 481, fig. 272) a low wall between the three porticoes at the House of Philocalus (ix.3.15). She noted (237, no. 489) at the House of the Pigmy (ix.5.9) a low wall between the columns. She noted (238, no. 496) at the House of Oppius (Gratus) (ix.6.5–7) a low wall 0.80 meters high between the sixteen columns of the peristyle; this phenomenon must be put in relation to the installation of garden boxes in *atria* in Pompeii, for example, such as noted by George 1998, 93–8; and by Jashemski (78, no. 135, fig. 80) at the House of Loreius Tiburtinus; or noted (125, no. 220) at the House of Neptune (vi.5.3); at a house (vi.5.4) where six columns around the *impluvium* where connected with a channel for planting at the top (now disappeared); or (126, no. 229) at the House of Modestus (vi.5.13), where there is a low wall with planting beds around the *impluvium*. She also cites (270, no. 552) at Herculaneum, the Casa dell’atrio corintio, planting beds at the top of the walls around the peristyles, which are often in a poor state of conservation. Vipard 2003, 118–21, figs. 28, 29 discusses the *domus* of M. Vipsanius Primigenius (Abellinum – Atripalda) at Irpinia (about 40 kilometers from Herculaneum), noting that it is difficult to determine if there were originally planting boxes or recesses for wooden window frames on the top of the peristyle wall. Dessales 2014 also comments on planting boxes.
- 74 Vipard 2003, 105.
- 75 Loustaud 2000, 202–5; Barbet 2008, 143–5, fig. 203; Loustaud and Malek 2011, 100–1.
- 76 Bullo and Ghedini 2003, vol. 1, 53–7 makes these observations with specific comparisons in notes and a table (59–79).
- 77 Gauckler 1897, 188.
- 78 Bullo and Ghedini 2003, vol. 1, 53; vol. 2, 325, and plan 326.
- 79 Jashemski 1993, 323–4, figs. 371–2: Pompeii, House of the Menander, shows: hunting scenes, wading birds, and plants (Ling 2005, 89–92, 211–15, figs. 40–7); the low walls of the peristyle at the House of Adonis (vi.7.18) (Jashemski 1993, 130, no. 242) could be compared to the “Gladiator Barracks” (v.5.3) (118, no. 198, fig. 131) with a parapet 1.20 meters high around the peristyle and decorated with two mythological scenes and hunting scenes like those subjects painted on paradeisoi. The House “della Soffita” (v.3.4) also has a low wall, 0.80 meters high, decorated with plants and flying birds comparable to those in Gaul in the House in Formigé Square, with garden fence, bushes, and birds (see Rivet 2010, 290–3).
- 80 An example of this in Pompeii is house 1.7.10/12–19, which was part of the House of the Ephebe where Jashemski 1993, 41, no. 42, states that: “At the height of 1.70m from the bottom of each column is a rectangular hole turned toward the intercolumniation, except in the middle intercolumniation on the north, in front of the exedra (g), which has a view on the garden.” Maiuri 1929, 367–69, suggested that the wooden beams that had been inserted in these cavities in the last years of the city and in similar cavities in other Pompeian peristyles had held curtains or mats which gave protection from heat or cold and shielded the rooms from the view of neighbors above. In the House of Meleager (vi.9.2), Jashemski 1993, 137, no. 254 says that curtains were installed between the columns: “The hooks for the cords, used to draw the curtains, are near the floor in the two rooms at the rear.” Evidence for hanging curtains has been identified in the great peristyle of the House of the Centenary (ix.8.3/6). Jashemski 1993, 244, no. 506 notes that iron nails or hooks for their installation have been found in the excavation. In these two cases, both are associated with a wooden fence. Jashemski 1993, 107, no. 163 further underlines in the House of the Little Bull (v.1.7/9) that nails indicate the place for suspending curtains or perhaps garlands.
- 81 Sen., *Prov.* 4.5 states: “The man who has always had glazed windows to shield him from a draft, whose feet have been kept warm by hot applications renewed from time to time, whose dining halls have been tempered by hot air passing beneath the floor and circulating round the walls – this man will run great risk if he is brushed by a gentle breeze.”

- 82 Zaccaria Ruggiu 1991, 102 rejects the dating of the first half of the first century BC, proposed in 1983, because of other well-known examples dating to the first century AD. Vipard 2003, 118 and n. 50 proposes a Claudian or Neronian chronology.
- 83 Jashemski 1993, 165, no. 311 shows what may perhaps be another example of a portico enclosed with glass windows in Pompeii in garden (c) of the *Insula Occidentalis* 23–6.
- 84 For an overview of the question, see Vipard 2003, 99–134, including bibliography on different sites.
- 85 Zanker 1990 and Zanker 2001, 145–56. Also, see Jashemski 1993, no. 133, 78–83 and Clarke 1991, 193–207, especially 200 on the villa as model for middle-class houses. On the decorative program: di Pasquale and Paolucci 2007, 306–14.
- 86 Gros 2001, 156–9; Goudineau and de Kisch 1979 discuss the detailed chronology of the house; see also Provost and Meffre 2003, 181–90.
- 87 Gros et al. 1996, vol. 1, 342–5.
- 88 Morvillez 2011, especially 111–16, figs. 4–7.
- 89 Pesando and Guidobaldi 2006a, 53–4, fig. 28 indicate that according to what is known of the excavations in 1827, this parcel was divided into even beds, 2.50 meters in width, separated by paths and irrigated. See Jashemski 1993, 127, no. 234, plan 44.
- 90 The originally installed slender quadriportico with hexagonal red painted columns was not restored after AD 62. This is either an effect of the crisis or this may correspond to a change in taste with a new desire to let the garden appear more natural. Jashemski 1993, 113, no. 180 concluded from the soil contours that a kitchen garden was here in the last phase. For house chronology, see Ehrhardt 2004, 165–73, garden (5) 215; Pesando and Guidobaldi 2006a, 95–100, fig. 49.
- 91 Pesando and Guidobaldi 2006a, 109–13, fig. 62.
- 92 According to Jashemski 1993, 252, no. 518 it seems not to have been densely planted (perhaps a kitchen garden?).
- 93 Mignon and Doray 1997; Roumégous 2009, no. 69, 196–8 (with complete bibliography).
- 94 Hor., *Epist.* 1.10.3: *laudaturque domus longos quae prospicit agros*.
- 95 Cf. Villedieu 2001a, 34, fig. 12; Tomei 2006, 58.
- 96 Brissaud et al. 1996, 349, 351.
- 97 “The mountain alone stretches the whole way along like a protecting shield held high, and for those who dwell in the outskirts at its foot there are none of the terrors to be associated with mountains, but sources of pleasure – springs, trees, gardens, the breezes and the flowers, the songs of birds and the pleasures of the spring which comes to them sooner than to anyone” (Norman 2000, 47).
- 98 Morvillez 2007, 62–3, fig. 12.
- 99 Bullo and Ghedini 2003, vol. 2, 274–6.
- 100 See Blanchard-Lemée 1975, 205–7 for the House of the Ass, House of Europa, and House of Castorius, and also Blanchard-Lemée 1998, 185–8.
- 101 Jashemski 1993, 202–4, no. 401, figs. 238, 240; Pesando and Guidobaldi 2006a, 150–3.
- 102 Respectively, Jashemski 1993, 264–6; no. 545; 262, no. 541; 273–4, no. 561. Pesando and Guidobaldi 2006a, 230–2, fig. 126; 218–23, fig. 120; 232–55, fig. 133; Wallace-Hadrill 2011, 244–6, 239–44, 246–53.
- 103 See Pliny (*Ep.* 2.17.14): “All round the drive runs a hedge of box, or rosemary to fill any gaps, for box will flourish extensively where it is sheltered by the buildings, but dries up if exposed in the open to the wind and salt spray even at a distance” (Radice 1969, vol. 1, 136–9).
- 104 Rebuffat 1969, nos. 1–2, 674; on the villas of the sea front at Hippone, see Sintès and Rebahi 2003, 192, 288–9 and Lavergne 2005.
- 105 Baradez 1961.
- 106 Rodríguez Hildago 1991, 291–302; Caballos Rufino et al. 1999, 69–74; Gros 2001, 183, figs. 191–2 supports the idea of side windows. More recently, Mañas Romero 2010, 54–6, 199 describes the northwest court fountain. The northeast basin (called *piscina* on the plans) has been planted (see 152, fig. 16). Caballos Rufino 2010, 90, fig. 7.7.
- 107 Darmon 1980, 14–17; Bullo and Ghedini 2003, vol. 1, 74–5; vol. 2, 179–82, pl. 180; for the painting on the fountain see Barbet 1999, 311–19.
- 108 Bullo and Ghedini 2003, vol. 1, 75, fig. 1; vol. 2, 351–4.
- 109 Gozlan 1992, vol. 2, 8–11, plan 9.
- 110 Bullo and Ghedini 2003, vol. 2, 341–3. Here, as in many cases, the nature of the floor has not been clearly determined.
- 111 Dulière et al. 1996, 31–66, nos. 32–4; Bullo and Ghedini 2003, vol. 1, 75; vol. 2, 313–16.
- 112 2.70 × 3.70 m. The little garden is 40 centimeters below the level of the galleries.
- 113 For a recent discussion on the houses of Volubilis see Ichkhakh 2012.
- 114 Galleries were separated from the center by low walls with stone slabs on the top, as shown by Thouvenot (1958, 49–87, pl. xi); Etienne (1960, 77–80, pl. xvii) dates the house and space to the middle of the third century; Rebuffat 1969, 669, no. 17; Panetier 2002, 98, 103.
- 115 Thouvenot 1945, 132–45, plan fig. 4; Rebuffat 1969, 670, no. 23.
- 116 Etienne 1960, 84–6, pl. xix; Rebuffat 1969, 670, no. 19.
- 117 Etienne 1960, 49–50, pl. ix.
- 118 Neuerburg 1965; for the grotto and *nymphaeum*, see Lavagne 1988; Lavagne 1990; Dessales 2007. The recent bibliography is too extensive to be exhaustively quoted. For Gaul, the renewal of the studies: Agusta-Boularot and Follain 2004.

- 119 Sen., *Tranq.* I.8.
- 120 For the basin, see Jashemski 1993, 32–4, 46; Dessales 2005; Dessales 2011; Chassillan 2011a; Chassillan Forthcoming.
- 121 Dessales 2007a; Dessales 2013, 351. For Ostia see Ricciardi and Scrinari 1996; Bukowiecki et al. 2008.
- 122 Slim 1990, 190–9.
- 123 Bullo and Ghedini 2003, vol. 2, 285–7: House of Lucius Verus; House of l’Africa (unpublished).
- 124 Bullo and Ghedini 2003, vol. 2, 8–11. The same procedure is found in the villa of Maternus (Carranque) in the fifth century, where a large apse in front of the reception room has a delightful head of the god Oceanus. No fountain was found in the little peristyle. Fernández Galiano et al. 1994, 317–26, plan fig. 1, and mosaic of the Ocean god (324, fig. 6).
- 125 Blanchard-Lemée 1975, 158–60, fig. 70, fig. 62.
- 126 Acholla: Asinius Rufinus, Bullo and Ghedini 2003, vol. 2, 12–13; Thysdrus: Bullo and Ghedini 2003, vol. 2, 309–10 (Dolphins), 313–16 (Peacock), 285–6 (Lucius Verus).
- 127 Bullo and Ghedini 2003, vol. 2, 197–8.
- 128 According to Balmelle 2001, 132–3, no. 22, figs. 338, 449, the circular form did not have any greater success in villas. In Aquitaine, it has so far been found only in the late villa of Labastide d’Armagnac (Landes), where it was 7.4 meters in diameter: Leveau 2002, 63, fig. 4 described a large circular structure about 12 meters in diameter in the center of a peristyle that was observed by aerial photography in a villa in the Commune of Lurs en Provence.
- 129 Ichkhakh 2012.
- 130 Jashemski 1993, 37, no. 35.
- 131 Jashemski 1993, 244–5, no. 506.
- 132 Jashemski 1993, 216, no. 436.
- 133 Jashemski 1993, 213, no. 431.
- 134 Jashemski 1993, 174, no. 324; *PPM* 7, 586–7.
- 135 Levi 1947, 36, fig. 11 shows the pool clearly in the foreground. The nature of the court, which extended behind it, is not known. Also, see Morvillez 2007, 59–60, fig. 7.
- 136 For houses of the Alcazaba, see Álvarez 2014.
- 137 Rebuffat 1969, 668, no. 6. The peristyle behind the pool, however, does not seem to have been planted.
- 138 Jashemski 1993, 181–2, no. 355; *PPM* 7, 93–120, figs. 40, 41. The rim of the semicircular pool was covered with marble and the borders painted in blue and green. A third quadrangular basin (1.32 × 0.71 m) with only one side remaining was identified during the excavation, only 12 centimeters to the west of the semicircular fountain. There was a lead pipe connecting the two pools. A marble support about 60 centimeters high is today on the rim, but its original location is unknown.
- 139 Jashemski 1993, 99, no. 2; 101, no. 156 shows that the summer *triclinium* leans against the back wall of the garden, painted with an imitation of marble cubes and rectangular blocks, dating from between AD 50 and 79.
- 140 Rebuffat 1969, 662; Thébert 1985, 346–57. According to Bullo and Ghedini 2003, vol. 1, 234–5, detailed tables (237–9) and drawings (240, fig. 1), 50 percent of the houses identified in Tunisia had apse fountains.
- 141 Levi 1947, 91–2, fig. 36; 94, fig. 38; 100, fig. 39.
- 142 Such pools are recorded in Republican and first-century AD literature: Cic., *Leg.* 2, 2; Sen., *Ep.* 90, 15. See Grimal 1984, 298–300.
- 143 Bullo and Ghedini 2003, vol. 2, 341–3.
- 144 Bullo and Ghedini 2003, vol. 2, 285–7. According to Ennaïfer 1976, 71–2, pl. 45 and Bullo and Ghedini, 2003, vol. 2, 25–6, a single long pool is perhaps more frequent in towns than once believed. Beschtaouch et al. 1977, 41–2, fig. 30 and Bullo and Ghedini 2003, vol. 2, 60 record a long *euripus*, connected with an apse found in house no. 7 of Bulla Regia. It probably once adorned a peristyle, which has yet to be uncovered.
- 145 Bullo and Ghedini 2003, vol. 2, 30–1. The Althiburos example is outside of, and on axis with, the House of the Asklepieia but its relationship with the house is unclear.
- 146 Bullo and Ghedini 2003, vol. 2, 27–9.
- 147 According to Bullo and Ghedini 2003, vol. 2, 70–1 axial pools also divided unplanted courtyards, as in the House of Dionysos and the Four Seasons at Volubilis. At Bulla Regia, in House No. 4, the pool, articulated on the inside with rectangular and semicircular niches, is on axis with the reception room but off-center within the peristyle courtyard.
- 148 Desbat et al. 1994 and Gros et al. 1996, vol. 2, 362–3; Faure-Brac 2006, 486–7.
- 149 Gros et al. 1996, vol. 2, 394–6; Faure-Brac 2006, 465–6.
- 150 Gros et al. 1996, vol. 2, 388–91; Faure-Brac 2006, 461–2.
- 151 Gros et al. 1996, vol. 2, 368–9; Faure-Brac 2006, 455–7.
- 152 Pelletier 1982, 173–5; Bouet 2003, 366–7, fig. 270.
- 153 Gros et al. 1996, vol. 2, 412–15; Faure-Brac 2006, 469.
- 154 Gros et al. 1996, vol. 2, 408–9; Faure-Brac 2006, 468.
- 155 Balil, 1976; Palma García 1997; Dupré i Raventós 2004, ch. 6, fig. 38.
- 156 Mora-Figueroa 1977, 347–8, fig. 2; according to Gorges 1979, 241, plan pl. 63 the rectangular planting bed in the center (7.36 × 4.50 m) is bordered by a canal (0.43 meters wide and 0.32 meters deep) along the four sides of the peristyle. An apse 0.60 meters wide is open on all sides.

- 157 Gorges 1979, 470–1, plan pls. 49–50.
- 158 Beschaouch et al. 1977, 100–7, fig. 105.
- 159 Morvillez 2006, 597–8.
- 160 Dated not before the middle of the first century: Zaccaria Ruggiu 1983, 19–22; Froza 1985, 84–7; George 1997, 31, 33.
- 161 Alarcão and Etienne 1987; Bairrão Oleiro 1992, 16–19, 74–5, pls. 1–2, 53, and 63.3. For the houses in the B sector with the same peristyle organization see Alarcão 2010, 28–45, figs. 12–14 (House of the Savasticas), 46–63, fig. 17 (House of the Squelets).
- 162 Cicero (*Ep.* 3.1.3) to his brother Quintus (from Arpinum, Sept. 54 BC): *equidem hoc quod melius intelligo affirmo, mirifica suavitate te villam habiturum piscina et salientibus additis, palaestra et silva viridicata* (trans. Shackelton Bailey 2002).
- 163 Gros 2001, 80–1, fig. 72 describes as an example a house with an *atrium* in Bolsena Volsinii where, to compensate for the lack of a peristyle and garden, a huge *nymphaeum*, which was visible from the reception rooms, was added in the second half of the first century BC. It encroached on the adjacent public space. The large *nymphaeum* under S. Salvatore at Brescia, with its *lucus*, is another example. See Gros 2001, 100–1, fig. 92 and Brogiolo et al. 2005.
- 164 George 1998, 88–92, figs. 4–5. This is also seen in other houses in Pompeii, such as the House of the Silver Wedding or the House of Meleager.
- 165 Jashemski 1993, 26, no. 12 shows that the water ran off into the gutter of the peristyle. Also see House of M. Holconius Rufus (VIII.4.4) and C. Cornelius Rufus (VIII.4.15), Dessales 2011, 251, fig. 9.
- 166 Bullo and Ghedini 2003, vol. 2, 47–9.
- 167 Rebuilt in the archaeological museum.
- 168 Jashemski 1993, 45–6, no. 61 and figs. 49–52.
- 169 Rivet et al. 2000, 348–50, 426 and fig. 777 show that in House IV, 28, three basins completely filled a little peristyle and are inserted into each other. For details, see Rivet 2010, 241–94.
- 170 Rivet et al. 2000, 425–6.
- 171 Mau 1896, 37–8.
- 172 Ciro Nappo 2008, 61–2, esp. nn. 31–3 describes the complex water supply and the control system by faucets of the famous *triclinium* at Murecine (Moregine).
- 173 Heyken 2004 inventoried these stepped fountains. Some items come from *atria* decoration and only a few can be traced to gardens with any certainty. Lavagne 1998, 269–87 provides examples from urban excavations in Gaul.
- 174 Zanker 2001, 156–60.
- 175 Di Pasquale and Paolucci 2007, 303–13.
- 176 Di Pasquale and Paolucci 2007, 290–5.
- 177 Jashemski 1993, 130–1, no. 246; Zanker 2001, 156–60; Pesando 2006, 178–9 discusses the role of those paintings; Eristov 2014.
- 178 Leveau 1982, 119–21, fig. 6.
- 179 Jashemski 1993, 231–3, no. 479; Dwyer 1982, 41 gives a very clear scheme for the placement of the sculptures.
- 180 Jashemski 1993, 108–9, no. 168; Andersson 1990, 227, fig. 15, proposed the use of the courtyard to install a summer *triclinium* around the fountain. Morvillez 2007, 63 observes that at Antioch paintings of gardens were seen above *nymphaea* and pools but these have not been documented.
- 181 Bullo and Ghedini 2003, vol. 2, 125–7, with bibliography; Ennabli and Ben Osman 1983, 156.
- 182 Lassus 1969–71, 44–55; Baratte 2009.
- 183 Thébert 1971, 13, fig. 1; Bullo and Ghedini 2003, vol. 2, 40–2: “... alcuni fori aperti alla sommità dei muretti che la attraversano fanno pensare all’esistenza di una copertura, forse a carattere vegetale.”
- 184 Jashemski 1993, 261, no. 540, fig. 288.
- 185 Jashemski 1993, 141–2, no. 266; Pesando and Guidobaldi 2006a, 63–7, figs. 34–5 completely reassessed this; Coarelli and Pesando 2006, 208–20, pls. LX–LXIII.
- 186 Provost and Meffre 2003, 267–74.
- 187 Gros et al. 1996, vol. 2, 76–9; Gros 2001, 190–1.
- 188 Jashemski 1993, 50, no. 69, fig. 59.
- 189 Jashemski 1993, 259–60, no. 537; Pesando and Guidobaldi 2006a, 205.
- 190 Jashemski 1993, 102–3, no. 157.
- 191 Jashemski 1993, 37, no. 38.
- 192 Bullo and Ghedini 2003, vol. 2, 274–6, with bibliography.
- 193 Bullo and Ghedini 2003, vol. 2, 30–1, with bibliography.
- 194 Blanchard-Lemée 1998, 186–8.
- 195 The gardens in the domestic context at Ostia during this period are seen less frequently than the paved courtyards with *nymphaea*.
- 196 August., *Confessions* 9.10.23: “As the day now approached on which she (Monica) was to depart this life – a day which thou knewest, but which we did not – it happened ... that she and I stood alone, leaning in a certain window from which the garden of the house we occupied at Ostia could be seen. Here in this place, removed from the crowd, we were resting ourselves for the voyage after the fatigues of a long journey” (Outler 1955).
- 197 Jashemski 1993, 186–7, no. 365.
- 198 Jashemski 1979, 89–97 discusses eating in the garden.
- 199 Jashemski 1979 has presented in detail all Campanian examples. Also see Soprano 1950, 288–310; Salza Prina Ricotti 1987;

- Richardson 1988a, 305–12; Dunbabin 2003, 50–5; Morvillez 2008.
- 200 Jashemski 1993, 115, no. 189.
- 201 Jashemski 1993, 22, no. 3; Higginbotham 1997 (and following), 63–4 discusses *piscinae* and their place in relation with *biclinia* or *triclinia*. Other examples of houses in Pompeii with fish-ponds: House VIII.2.14 (198–201, figs. 90–2); House of Gavius Rufus, VII.2.16 (201–2, fig. 93); House of Meleager (202–4, fig. 95); Praedia of Julia Felix (207–10, figs. 99–100); House of Octavius Quartio (210–13); Villa of Diomedes (204–6, fig. 96).
- 202 About twenty-five nails have been found *in situ*. The excavators were able to recognize in the ashes the carbonized shape of the *triclinium*. See Ehrhardt 1998, fig. 242.
- 203 Jashemski 1993, 47–8, no. 54, fig. 53.
- 204 Jashemski 1993, 181, no. 354.
- 205 Fiorelli 1873, 68 states: “il piccolo viridario, con spazio separato per il triclinio estivo.”
- 206 Jashemski 1993, 32, no. 26 writes of a “paved space”; and Soprano 1950, 307, no. 29 states: “I triclini al aperti ...”
- 207 Gros et al. 1996, vol. 2, 381–2; Delaval and Savay-Guerraz 1992, 27–8; Desbat et al. 1994, 160–3, 177, figs. 132, 135–6, 148, pls. 104–5; Dessales 2011, 252–3. It was seen as a *lararium*, but could have simply held a decorative statue. This apse is conserved only in plan. There was no archaeological evidence for a covered niche. Dwyer 1979, 62 warns about not confusing such niches in gardens with household *lararia*.
- 208 Boucher 1980; Gros et al. 1996, vol. 2, 395–9 and 400–1 offers a sequence of the different phases; cf. Réunion des Musées nationaux 1999, 36–9; Dessales 2011, 253, fig. 10; Chassillan 2011, 124–6.
- 209 Gros et al. 1996, vol. 2, 418–19; cf. Réunion des Musées nationaux 1999, 59.
- 210 This type of elaborate *nymphaeum*, now heavily restored, is one of the rare examples known in Gaul in a *domus* of this period.
- 211 Morvillez 2008, 42.
- 212 Morvillez 2008, 49–50, fig. 11.
- 213 Morvillez 2008, 48–9, fig. 6 notes that the dating appears too early, but the archaeological evidence seems to confirm the second-century chronology.
- 214 Dunbabin 2003, 187–8, fig. 109.
- 215 Vaquerizo and Carrillo Diaz-Pines 1995 discuss the Villa d’El Ruedo, near Córdoba. Also, see Vaquerizo and Noguera Celdrán 1997. For the villa of Faragola, see Volpe 2006, 319–49 and, more recently, Volpe 2011.
- 216 Morvillez 2001, pl. LX and Morvillez 2007a discuss Carthage, stating that, although the exact context of the “Utere felix” fountain, adorned with sprays of roses depicted in mosaic and painting, is not known, its decoration included sculpted hermes on its marble fence and birds that accompanied banqueters in the spirit of the garden: Morvillez 2008, 50, figs. 7–8 states that the sigma fountain in the House of Hesyschius in Cyrene (Libya) was installed in a paved courtyard with a little rectangular basin, but without any plantings.
- 217 Mignon 1996, 235–7, figs. 2–3 provides a comparison for the Augustan and mid-first-century phases; Gros et al. 1996, vol. 1, 218–33; and Roumégous 2009, 117–21, fig. 49.
- 218 Gros et al. 1996, vol. 2, 248–50.
- 219 Gros et al. 1996, vol. 2, 240–2; Roumégous 2009, 250–1.
- 220 Rivet et al. 2000, 195–8, 208–9, 416–18; Barbet 2008, 73–6, 297–8, figs. 454–6; 74–5, fig. 82. Rivet 2010, 241–94 recently called the house “à l’atrium fleuri.”
- 221 Rivet 2010, 290–3 hypothesized that either a terrace covered over the north and south galleries, or there was a two-story portico around the court.
- 222 Barbet 2008, 297 notes that this type of decoration is typical of the Neronian period in Italy.
- 223 Perhaps the comparison with an *atrium* should be rejected because it is too open and the impression on entering was exactly the opposite of that given by an imposing *atrium* opening after the *fauces*. One who saw this pleasant decor would immediately forget the official public aspect of this kind of space. Moreover, from a social perspective, the house is too modest for the owner to have had any need for a traditional *atrium*.
- 224 Barbet 2008, 298 suggested the possibility of a shrine (*lararium*); Rivet 2010, 268, 288 disagrees. He thought that the access to the *puteal* was probably open at this time on the west side (unexcavated).
- 225 Rivet 2010, 268–9, figs. 309–10 shows that the center of the courtyard became less accessible and a lead pipe, certainly associated with a pump, was inserted in the *puteal* to bring water to the kitchen.
- 226 Rivet et al. 2000, 196. Barbet 2008, 73 proposed a date later than the 60s on the basis of stylistic criteria of the paintings.
- 227 Rivet 2010, 339–50.
- 228 Rivet 2010, 343–4, figs. 410–14.
- 229 Zaccaria Ruggiu 1995, 291, esp. fig. 23; Hoepfner and Schwandner 1986, 108–10, fig. 87.
- 230 Morvillez 2006, 595–6, fig. 6; Loustaud 2000, 193–202. For a discussion about the joining of these two houses: Loustaud and Malek 2011, 105–9, figs. 8, 9a, 10.
- 231 Gros 2001, 188, fig. 200; Guyon et al. 1998, 65–8 and 261–77.
- 232 Wallace-Hadrill 1994, 204; Jashemski 1993, 270, no. 554; Pesando and Guidobaldi 2006, 358.

- 233 Jashemski 1993, 270, no. 554; Ganshow 1989, 285–303 suggests that the courtyard was used for the collection of rainwater (as in Fréjus in Formigé Square).
- 234 Jashemski 1993, 134–5, no. 249.
- 235 For the date of the transformation of the *viridarium*, see *PPM* 5, 539–41, figs. 19–20 (with detailed bibliography); Pesando and Guidobaldi 2006, 153; Jashemski 1993, 108, no. 165 (paintings), no. 31; 333–4, figs. 386–8; Cassanelli et al. 1997, 145; Eristov 2014.
- 236 Jashemski 1993, 84, no. 139 and plan 26 describes the comparable House of Venus marine *diaeta* (b).
- 237 Jashemski 1993, 148, no. 282; *PPM* 5, 202–3.
- 238 This painting presumably replaced a First Style decoration from which some elements still remain. The themes (battle between exotic animals: a snake against an elephant) associate this painting with the Fourth Style, comparable with garden paintings in the House of Romulus and Remus.
- 239 Van Rohden 1880, 21–2, 45–6, and fig. 34; Jashemski 1993, 148, fig. 161.
- 240 Barbet 1985, 9–12 and 2, pl. 1A. On the chronology of the peristyle, see Massa-Pairault et al. 1979, 1–3; 5: “le péristyle, construit vers le milieu du II^e siècle av. J.-C. dû avoir une existence d’un siècle environ.” 261: “Les colonnes du péristyle ont été rasées, et par là-même, les quatre galeries de l’ambulacre supprimées au milieu du I^{er} siècle av. J.-C.” The peristyle existed from about 150 to 50 BC, when it was destroyed and replaced by a courtyard.
- 241 The documentation does not make it clear whether or not it was planted.
- 242 Sen., *Tranq.* 1.8. See also Sen., *Controv.* 5.5: *in summis culminibus mentita nemora et navigabilium piscinarum freta*.
- 243 Pliny, *HN* 19, 21.
- 244 Chassillan 2011.
- 245 This case was recently emphasized by urban excavations at Apt (about 50 kilometers east of Avignon). See Tallah 2004, 66–7, 76–7.
- (1714–63), a poet-gardener, had earlier coined the term landscape gardening: Shenstone 1764. Hoskins 1955 began the study of “landscape history.”
- 3 Pagán 2006, 38.
- 4 Purcell 2001, 549.
- 5 Pliny, *HN* 19.50; Carey 2003, 103.
- 6 Varro, *Rust.* 2.1–6.
- 7 Cf. a villa at Sirmione, the so-called Grotte di Catullo in Brescia, which had a completely symmetrical plan around a large peristyle court that might reflect the Villa Publica. See also the Villa Prato at Sperlonga (Broise and Lafon 2000), dating from about 130 to before 40 BC, which was clearly divided between *pars urbana* and *pars rustica*. A *villa suburbana* (such as Axius’) could be virtually indistinguishable from a *villa rustica* according to Carlsen 1995, 31.
- 8 Percival 1976, 14. At Rome the zone immediately outside the old Servian Walls was perhaps so industrial and densely inhabited, at least in certain areas, that it may have acted as a transitional space between the intramural city and the outlying countryside. See, for example, remarks by Dionysius of Halicarnassus, 4.13.4–5.
- 9 Wallace-Hadrill 1998, 47.
- 10 Suet., *Aug.* 72.
- 11 Hor., *Sat.* 2.6.77–99; Hor., *Epist.* 1.7.8. See Braund 1989, 23–47.
- 12 Cic., *Att.* 2.14.2. Gardens as places for complete refuge are only in the imagination according to Johnson 2004, 82.
- 13 Hor., *Epist.* 1.15.46.
- 14 Pliny, *HN* 19.49–51.
- 15 According to Newby 2002a, 113: “This acceptance of luxury, in both the decoration and architecture of such villas, is paralleled by a change in attitude toward rhetoric.”
- 16 Hor., *Carm.* 2.15. According to Pliny, *HN* 12.111, Pompey first introduced into Italy plane trees, native to Asia Minor, in his public gardens in the Campus Martius.
- 17 Quint., *Inst.* 8.3.8.
- 18 Cic., *Off.* 1.138–40.
- 19 See Sollman 1953.
- 20 Cic., *Leg.* 2.5.
- 21 Ingold 1993, 152; Stedman 2003.
- 22 Cic., *Rep.* 1.14; Cic., *Amic.* 25; Livy, *History of Rome* 38.57.1.
- 23 Sen., *Ep.* 86.4.
- 24 According to Henderson 2004, 105: Scipio’s villa at Liternum, as described by Seneca, was “not so much a mansion or farmhouse as a major military installation ... The ‘perimeter wall around a wood’ is the Roman army camp’s circumvallation turned inside-out: enclosing the forest rather than protecting troops from ambush or in the wild. Expect no interior garden at Liternum (bush, flower, bird, gnome ...).”

CHAPTER 2

- 1 Harmand 1951, 155–8. Author’s note: This essay was substantially completed five years ago. Where possible, later publications have been incorporated into the text and notes.
- 2 Pliny, *HN* 19.50. A similar change in the meaning of “garden” occurred in the eighteenth century: Whately 1770, 299, was among the first to observe a profound change in the meaning of gardening, which now included the wider landscape, the farm, and the forest – places not just for ornamental plants but also for walking, riding, hunting, agriculture, and forestry. William Shenstone

- 25 Sen., *Ep.* 51.11–12.
- 26 Strab., 5.4.8.
- 27 Lafon 2001. Note that villas sited directly onto the sea did not appear until the first half of the first century BC, after the development of hydraulic cement. For connections between theater space and garden space, see Stackelberg 2009, 82–6.
- 28 Maiuri 1934, 170.
- 29 Varro, *Rust.* 3.17.9; Pliny, *HN* 9.170; Vell. Pat., 2.33.4; Plut., *Vit. Luc.* 39 (attributed this comment to Tubero the Stoic).
- 30 Tac., *Ann.* 2.37–8; Suet., *Tib.* 47.
- 31 Suet., *Ner.* 31, 39.
- 32 Mart., *Ep.* 12.50.
- 33 *FHG* 4.67–8 (Olimpiodoros, extracted from a later compiler: Photius' *Bibliotheca* 63a); Coarelli, 1986, 40.
- 34 Grimal 1969, 293–5: the most-used Latin epithet applicable to the nature of a garden was *riguus* (a well-watered place). For a good discussion on the Roman control and management of water see Purcell 1996.
- 35 Pliny, *Ep.* 2.17.25.
- 36 Stat., *Silv.* 1.3. 2–4, 24–6. Contrast Statius' praise for Manilius' suburban villa with Martial's (*Epigrams* 1.86.1–2) lament about the closeness of his living quarters to his neighbors in the city. Manilius' son, P. Manilius Vopiscus Quadratus Bassus, consul in 114, had a villa in Tivoli. See Spencer 2010, 104–13.
- 37 Stat., *Silv.* 1.2–6.
- 38 Cic., *ND* 2.39.98–100.
- 39 Pliny, *HN* 12.13; Sen., *Ep.* 122.7–8.
- 40 Pliny, *Ep.* 5.6.17. Varro, *Rust.* 1. 14, describes four different enclosures for the protection of a farm: the natural, the rustic, the military, and the masonry. According to Erp-Houtepen 1986, 229, "the fence or wall is a basic and characteristic feature of the garden: a garden without a fence is in fact no longer a proper garden." Likewise, the Persian word *pairidaeza* probably was derived from *pairi*, meaning "around," and *daeza*, meaning "wall." See Carroll 2003, 124.
- 41 According to Veyne 1987, 186: "Romans did not really feel at home in the country. To feel at home they needed a city, in particular a city surrounded by ramparts. This is a trait of the Roman psychology: walls were a city's finest ornament, defining the space of the commercial home."
- 42 Stat., *Silv.* 2.215–16, 26–9; Pliny, *Ep.* 2.15.
- 43 Sen., *Controv.* 5.5; Stat., *Silv.* 1.2.156–7.
- 44 Garber 1974; Bek 1980, 179–80.
- 45 Bek 1980, 179, 189.
- 46 Pliny, *HN* 19.50.
- 47 Bek 1980, 188–9.
- 48 *FHG*, 6.1–9 (Alciphron).
- 49 Pliny, *Ep.* 5.6.13: "It is a great pleasure to look down on the countryside from the mountain, for the view seems to be a painted scene of unusual beauty rather than a real landscape, and the harmony to be found in this variety refreshes the eye wherever it turns." Trans. B. Radice, *The Letters of the Younger Pliny* (London 1963).
- 50 Bek 1980, 189.
- 51 Purcell 1998, 11.
- 52 Arist., *Top.* 163b.24–30; Bounia 2004, 161. Note that Foucault 1986, 25 employed the term "heterotopia" to describe the superposed meanings inherent in gardens.
- 53 Cic., *De Or.* 2.86.351–60, Quint., *Inst.* 11.2.17–26.
- 54 Pliny, *HN* 12.13; 35.116–17. See Conticello and Romano 1992, 29–33, and Ling 1977 for Caius Matius.
- 55 Animals and landscape: Pliny, *Ep.* 5.6.16; Vitruv., *De Arch.* 7.5.2; Scenes of war: Pliny, *HN* 16.140.
- 56 Pliny, *Ep.* 5.6.35. Grimal 1969, 88–95; Rizzo 1983.
- 57 S.H.A., *Tyr. Trig.* 32, 5–7.
- 58 A recent study argues that the Hanging Gardens were in the Assyrian city of Nineveh: Dalley 2013.
- 59 Pliny, *HN* 31.1.3.
- 60 Cic., *Div.* 1.5.8; *Tusc.* 2.3.9.
- 61 Cic., *Leg.* 2.7; *Att.* 1.13.1; 1.16.15–18.
- 62 Ath., 12.541c–542a.
- 63 For a recent provocative discussion of *ekphrasis*, see Chinn 2007.
- 64 Pagán 2006, 16.
- 65 Cic. *Att.* 15.9.1. Stackelberg 2009, 65, 81.
- 66 Cic., *Leg.* 2.1.2–3.
- 67 Sen., *Ep.* 83.5; Pliny, *Ep.* 1.3.1. According to Stackelberg 2009, 40, "the inclusion of a *euripus* [in Roman gardens] suggested both glamour and Hellenistic elegance (Cic. *De Leg.* 2.1.2; Q. *Fr.* 3.9.7)."
- 68 Nielsen 1999, 133.
- 69 Varro, *Rust.* 2.1. Labeling an architectural space, as Wallace-Hadrill 1988, 48, points out, does not "explain it."
- 70 Cic., *Verr.* 3.9, 5.12.7; *Orat.* 132.
- 71 Cic., *De Or.* 3.17–18.
- 72 See Nielsen 1999, 164–80. See also Mielsch 1987, 32–4.
- 73 Zanker 1983, Zanker 1990, La Rocca 1986, Lauter 1998, and Nielsen 1999, 164, believe that Hellenistic palaces influenced Roman houses in Italy. Coarelli 1983, Wallace-Hadrill 1988, and Carandini 1990, 10, 12, believe that palatial houses and villas were inspired primarily by religious or public buildings. For the possible influence of political changes on the creation of the Roman villa see Oehme 1988. The Villa dei Centroni on the Via Anagnina near Rome in all probability had taken as its model the Sanctuary of Fortuna Primigenia at Palestrina: Di Matteo 2003. The so-called S. Maria villa by Lake Nemi had an impressive Doric portico: The use of a distinctive type of capital appears to have been a deliberately

- antiquarian feature in order to evoke the architectural elements of the nearby Sanctuary of Diana, which employed nearly identical capitals. See Guldager Bilde 2005, 1–10.
- 74 See Carandini et al. 1997 and Terrenato 2001. See also Fentress 2003, 555, who reports that a true *atrium* does not appear at the Auditorium site until around 225 BC (rather than the middle of the third century according to Terrenato 2001, 10).
- 75 Carandini 1990 and Nielsen 1997.
- 76 Pesando 1997, 62–8. Ehrhardt 2005 suggests that this so-called Rhodian peristyle was a second-century Campanian plan inspired by the Hellenistic East, not a Fourth Style or Neronian remodeling.
- 77 Etienne 1960, 121, attempted, for example, to determine Roman or Greek influences on houses in Volubilis by measuring the ratio of roofed-over to exposed ground in courtyards, which indicated to him whether the enclosure was an *atrium* or *peristylum*. The distinction between these spaces, particularly beginning in the first century AD, could be blurred, with *atria* possessing gardens and sculptures as well as colonnades – elements associated more with peristyles than with *atria*: see George 1998. See also Wallace-Hadrill 2015.
- 78 Whitaker 1921 dated the house to the fifth century because of the presumed date of the pebble mosaic. Tusa 1967, 88–93, dates the mosaic and house to the fourth century. See also Isserlin and Du Plat Taylor 1974, 89–90.
- 79 Daniels 1995, 93.
- 80 Nevett 1999.
- 81 Ducrey et al. 1993, 47.
- 82 Nevett 1999, 109–11; fig. 32 (plan).
- 83 Philo, 44.351–68.
- 84 *RE* 18 (1949) 113–34 s.v. *paradeisos* (Ziegler). See also Stronach 1989.
- 85 Nielsen 1996, 209.
- 86 Nielsen 1994, 34. Note that peristyles using wooden columns appeared at Olynthus before 342 BC and at Eretria during the fourth century, probably under the influence of public buildings such as the Pompeion at Athens: Wilson 2003, 584.
- 87 See Mahjoubi 2000, 195. See also Fentress 1998 and Fentress 2001.
- 88 Tessaro Pinamonti 1984, 52–5. Trees, shrubs, and vines often were planted in *quincunx* formation (e.g., the five spots on a die) that may have been a specifically Roman plan. Although Cicero interpreted Xenophon’s admiration for the regularized plan in an Oriental park as a *quincunx*, Greek writers never mention staggered rows of plantings. It is likely, therefore, (in spite of Cicero’s claims) that eastern planting was planned in even rows of equal numbers rather than in the typically Roman *quincunx*. Cic., *Sen.* 17.59; see also Quint., *Inst.* 8.3.9; Varro, *Rust.* 1.7.2; Columella, *Rust.* 3.15.1. The planting of trees in regular patterns as a symbol of power and wealth is not exclusive to the ancient world, as noted by Ehrlich 2001, 121–7.
- 89 Nielsen 1999, 91–2, speculates that the peristyle in the Royal Palace at Pella “was probably furnished with a garden, as was the case in the houses of Dionysus (Pella) and Helen, and perhaps also in the Palace at Aigai,” and that Peristyle v in the Royal Palace at Pella “may well have included a formal garden.” She also argues (171–3) that the palace built in Syracuse by Dionysius I and renovated by Agathocles, and that later was used by Hieron II and by a Roman governor, *could* have had formal gardens. Because it was in Italy, this palace (of which nothing is preserved) *could* have had a direct influence on Italian gardens. Unfortunately, there is no archaeological evidence to support that gardens indeed existed in these places. Excavations at the Hellenistic fortress of Jebel Khalid on the west bank of the Euphrates in northern Syria uncovered remains of what was presumably the governor’s mansion laid out around a large square peristyle courtyard. According to the excavator, Clarke 2001, 217, a deep wide foundation trench “in front of the stylobate on the courtyard side [was] filled with stone-less, rich brown, nitrogenous soil,” suggesting the possibility of a garden. There is no indication that this soil yielded evidence of plantings (however enticing the speculation) and the floor of the courtyard and of the colonnade, “consist[ing] of a few centimetres of a very hard packed mixture of clay and gritty limestone ... creating a particularly hard surface ... [over which] [i]t is possible that the whole area was once paved,” speaks against a garden.
- 90 According to Carroll-Spillecke 1992b, 166–70, the garden-peristyle was a pure Italic feature developed from the *horti* that belonged to old Italic houses. She argues (*contra* Nielsen 1999) that Hellenistic palaces did not have gardens. For a discussion of possible “public” activities in peristyles see Simelius 2015.
- 91 A man could be partially characterized by his public gait, which likely was an affectation, so that within private gardens and peristyles one’s walk might be less formal. See Corbeill 2002, 192–4.
- 92 Evans 2008, 22.
- 93 Swoboda 1918 was the first to determine two types of Roman pleasure villas – an “open” or “portico,” and a “closed” or “peristyle” villa, which are, however, not mutually exclusive.
- 94 See Ingold 1993, 166.
- 95 Campitelli 2003, 22.

- 96 Stackelberg 2009, 86.
 97 Pliny, *Ep.* 5.6.18. See also Beck 2002.
 98 Pliny, *Ep.* 5.6.23–4.
 99 Cic., *Att.* 2.3.2.
 100 Cic., *Fam.* 7.1.1: “by making a gap” (*perforando*) could mean that trees were cut down in order to open the view toward Stabiae.
 101 Pliny, *Ep.* 5.6.16–35.
 102 Taylor 2003, 63. For terracing systems in the ancient Greek world see Foxhall 1996.
 103 Stat., *Silv.* 2.2.72–85.
 104 Dionysius the Younger’s palace at Syracuse, according to letters of Plato, had large gardens (*kepoi*) that were divided into sections by walls: Pliny, *Ep.* 2.313a, 3.319a, 7.347a, 7.348e. Seneca (*Ep.* 86.4) described the villa of Scipio Africanus as having a wall enclosing his forest. Pliny the Younger (*Ep.* 5.16.17) described a stone wall around his Laurentian garden that was hidden from sight by a box hedge planted in tiers. A geophysical survey of the villa at Cottanello in the territory of Forum Novum on the right bank of the Tiber appears to show extensive gardens surrounded by high walls: Sternini 2000, Appendix. For the etymology of *hortus* see Erp-Houtepen 1986, 229, who writes that: “the fence or wall is a basic and characteristic feature of the garden: a garden without a fence is in fact no longer a proper garden.”
 105 Campitelli 2003, 22.
 106 Nep., *Att.* 25.13.
 107 Hor., *Carm.* 1.12, compared the glory of Marcellus to a tree that “grows by the silent lapse of time.” For the types of trees found in archaeological contexts, wall paintings, and mentioned in ancient literature see Tessaro Pinamonti 1984, 60. For live trees in triumphal processions, see Pliny, *HN* 12.111–12.
 108 Hor., *Epod.* 1.10.22–3.
 109 For discussion of single trees in gardens and the appearance of single trees in wall paintings see Croisille 1982, 195–201. For the embodiment of history manifest in a tree see Ingold’s 1993, 167–8 discussion of Pieter Bruegel the Elder’s painting of 1565, *The Harvesters*.
 110 Stat., *Silv.* 2.3–4. Atedius Melior’s extravagance was such that he possessed a parrot that lived in a cage of silver and ivory.
 111 Stat., *Silv.* 1.59–61.
 112 Mart., *Ep.* 9.61.
 113 Macrob., *Sat.* 3.13.3; Pliny, *HN* 12.4.8; 16.91.242; Mart., *Ep.* 9.61.16.
 114 Sen., *Controv.* 5.5. There were, clearly, no zoning laws restricting the poor from living next door to the rich or else Seneca’s telling of this incident would not have rung true to his audience. High walls around properties, therefore, were necessary structures to not only designate one’s land holdings but also to keep undesirable neighbors out of sight.
 115 Trees as inherited property could take on complex ownership in 1950s Cyprus, where according to Lawrence Durrell in his memoir *Bitter Lemons of Cyprus*, “one man may own the produce of the tree, another the ground on which it stands, a third the actual timber.” Durrell continues that as a result “litigation assumes gigantic proportions – which explains why there are so many lawyers in Cyprus.”
 116 See Bettini 1992, 53–8. In a similar way, according to Pliny (*HN* 35.151), Boutades, a potter, made a portrait by employing the silhouette of his daughter’s beloved. The resulting “shadow” of the sitter was considered an exact likeness that could readily evoke the real thing.
 117 Pliny, *HN* 16.124; 17.3–6.
 118 Cass. Dio 60[61].31.5.
 119 Pliny, *Ep.* 5.6.32. Varro, *Rust.* 1.15: “Some plant pines around the edges, as my wife has done on her Sabine farms; others plant cypresses, as I did on my place on Vesuvius; and still others plant elms, as many have done near Crustumaria.”
 120 Pliny, *HN* 12.5.10.
 121 Hor., *Epist.* 1.10.24–5.
 122 Cic., *Leg.* 1.1. See Mart., *Ep.* 9.61, in which a tree in Córdoba planted by Caesar is hoped to endure forever as a reminder of his victory over Pompey.
 123 For a discussion of the relationship of memory and culture see Rowlands 1993 and Gowing 2005. See also Baroin 1998 and Stackelberg 2009, 62–6.

CHAPTER 3

I owe much thanks to Kathryn Gleason and Kim J. Hartswick for asking me to write this essay and their patience with it. Eeva-Maria Viitanen kindly shared an unpublished chapter of her doctoral thesis with me many years ago. Many thanks are also due to Bettina Bergmann, Jacquelyn Clinton, Dragana Mladenovic, Hannah Platts, and Saskia Stevens, who read versions of this paper; their comments greatly improved it. All faults remain my own.

- 1 For example, see Pliny, *Ep.* 5.6.35. For a treatment of the villa garden in the ancient sources see Chapter 2 in this volume.
- 2 For example, Förtsch 1993; Salza Prina Ricotti 1987, 182–4. Du Prey 1994 studied the scholarly interpretations of Pliny’s literary descriptions through the ages and highlights the fundamental problems of this approach. For a pithy discussion of the problems of using Pliny’s villa letters, see Bergmann 2001, 154–66. Also see Frischer and Brown 2001 for an example of the ancient sources being used to locate Horace’s Sabine villa.

- 3 The *horti* were another important type of aristocratic residences. Although they were very similar to villas, they seem to be a distinctive class of high-status peri-urban estates, of which gardens were a major component. Their problematic nature and space constraints here rule out their inclusion in this essay. For some of the major monographs and articles on *horti*, see Grimal 1984, 109–66; Cima and La Rocca 1986; Häuber 1990; Purcell 2001; Hartswick 2004 and Macaulay 2006.
- 4 In his letters, 2.17 and 5.6, Pliny the Younger uses a wide range of terms to describe parts of his gardens, including *hortus*, *xystus*, *gestatio*, and *hippodromus*. Cicero describes a garden as a *viridarium*, for example, in one of his letters to Atticus (2.3.1.). On Pliny's villa letters and possible archaeological examples of the spaces that he describes, see Förtsch 1993 and Stackelberg 2009, 9–35. For a general discussion on the relationship of literature and archaeology, see Allison 2001, 181–208.
- 5 For a recent definition of a Roman garden and how wide-ranging this term can be in the Roman world, see Stackelberg 2009, 6–7.
- 6 Purcell 1995.
- 7 Kuttner 2003, 113, uses the term “designed landscape” as well, but does not define exactly what she means by this. Hence I offer my definition here.
- 8 The idea and definition of a “park” has proven problematic in the studies of ancient gardens; see Purcell 2001, 549–51, for a useful discussion. The word “park” has many modern connotations, most notably of a space where architecture is subordinated to greenery, which can create an inaccurate image of an ancient space or landscape. It is also problematic because of its modern associations with public parks, like London's Hyde Park or New York City's Central Park, or eighteenth-century English country houses and their landscaped settings. It is better, therefore, to speak of designed landscapes rather than parks in the context of ancient Roman gardens. Furthermore, many English country houses were even called parks. For example, Kirtlington Park, located north of Oxford, is a Gibbs house, set in a landscaped park designed by Capability Brown. Nearby is Bletchington Park, another stately home.
- 9 See Marzano 2007, esp. 1–13, for a recent treatment of villas in central Italy and their terminology and possible definitions. For one of the best and earliest treatments of the problems of defining the villa, see Percival 1976, 13–25. Also, see the Glossary and Chapter 2 in this volume. A single definition remains problematic since Roman villas could take different forms and functions.
- 10 Purcell 1996a, 121–2.
- 11 To my knowledge, there is no surviving archaeological evidence for gardens of any sort in the earliest Roman villas. Undoubtedly, agricultural production was a vital element of these early farmsteads and residences; however, until more excavations of early Republican villas are conducted, no further comments can be made.
- 12 See Jashemski 1994 for a complete discussion of the gardens at this villa.
- 13 See Bergmann 2001, 154–66.
- 14 Macaulay-Lewis 2008, 38–88, for a discussion of the ancient source material; for example, Cicero created an “Academy” at his villa at Puteoli. He also was very specific about which sculptures he wanted in his villa in order to create the correct effect and garden of allusion. See Cic., *Att.* 1.8.2; 1.4.3; 1.9.2; Cic., *Fam.* 7.23.1–3; Pliny, *HN* 31.6.6.
- 15 Neudecker 1988, 60–4; O'Sullivan 2003, 53–7; Macaulay-Lewis 2008, 149–215. See also Chapter 7 in this volume.
- 16 Kah and Scholz 2004; Skaltsa 2007, 452–4.
- 17 Nielsen 2001, 165–7, on the three types of Hellenistic palace gardens.
- 18 Scholars have used the term *paradeisos* to describe certain types of Hellenistic gardens. The exact meaning of the term is vague and little scholarly work has been done to clarify its possible meanings. Bedal 2004, 121–7, 141–7, refers to the Petra pool-garden complex as a *paradeisos* and also discusses the two definitions that Xenophon seems to give to the *paradeisos*, as a hunting park, and as an enclosed garden with plantings. Xenophon's usage highlights the diversity of meanings of ancient terms and hence the problem of modern applications of them to archaeological remains which they may or may not describe.
- 19 Nielsen 2001, 175–6, sees the gymnasium as important as well. She rightly identifies it as the inspiration for her second type of Hellenistic gardens. While there is no issue with this interpretation, the vocabulary of the ancient sources when describing certain porticoed gardens in Roman villas refers explicitly to the language of the gymnasium, not the gymnasium through the filter of the Hellenistic palace.
- 20 Nielsen 2001, 167.
- 21 Nielsen 1999, 130–3; 282–4; Nielsen 2001, 167–9.
- 22 Strab. 17.1.8.
- 23 Nielsen 2001, 167.
- 24 Nielsen 1999, 131; Strab. 17.1.8.
- 25 Nielsen 1999, 138–46, 284–6.
- 26 Nielsen, 2001, 168–9.
- 27 Nielsen 1999, 168–71, sees a Hellenistic origin for the garden courtyard of Roman houses and villas. Against this interpretation see Chapter 2 in this volume and Carroll-Spillecke 1989, 65.
- 28 Nielsen 2001, 177; Clarke 2001, 216–18.
- 29 We do not know whether these gardens were producing or not; only further archaeological excavation can answer this question.
- 30 Romizzi 2001, 181.

- 31 Carandini 1985a, 155.
- 32 Carandini 1985a, 140–1, fig. 139, 155–6; Romizzi 2001, 180–1. Carandini also suggests that the central planting bed was a flowerbed, but no evidence to support this claim is presented. On the plans planting beds are shown as being divided into eight equal squares; the excavators do not put forth any suggestion as to why eight are shown. They only suggest that the stratigraphy indicated the presence of paths in the gardens, as well as the two square planting beds of equal size.
- 33 Carandini 1985a, 155. The excavators also suggest that an aviary could have been located in one of these niches; this theory, however, is not supported with archaeological evidence. The size of the niches also makes this idea problematic.
- 34 Pliny mentions looking down at the *topiaria* at his Tuscan villa from horseback (*Ep.* 5.6.35), suggesting that gardens could also be appreciated from a higher vantage point. Archaeological evidence also seems to confirm this idea; the circus garden of the Domus Augustana (see Tomei 1992) could be walked in, but also could be viewed from the upper portico that lined the space and from the upper levels of the Domus Augustana from the second phase of the garden (constructed under Hadrian).
- 35 Carandini 1985a, 156.
- 36 For other examples of similar villa gardens, see Macaulay-Lewis 2008, 140–215.
- 37 Carandini 1985a, 156. See below for a discussion of the wall; also for comparison, see below on the use and reinterpretation of public architecture at Hadrian's Villa.
- 38 Carandini 1985a, 163.
- 39 Carandini 1985a, 173.
- 40 The internal, producing garden also developed at this time and is evident in many houses throughout the Roman world. See Chapter 1 in this volume.
- 41 For another example of this, see below, the Villa of the Papyri and Prima Porta. Also De Caro 2008.
- 42 For comparison, see the Domus Aurea discussion below.
- 43 On the villas of central and Roman Italy, see Marzano 2007 and Platts 2011, respectively. Lafon 2001 on the development of the maritime villa; D'Arms 1970, for the cultural milieu of the Bay of Naples. McKay 1998, 115–18. McKay and other scholars identified two types of maritime villas: the peristyle villa and *porticus* or corridor villas. Finally see the exhibition catalog, Mattusch 2008.
- 44 The term “maritime villa” is problematic; perhaps it is better to refer to this class of evidence as “coastal villas,” as Marzano suggests, to encompass the range of types of villas and their position relative to the coastline (Marzano 2007, 15–16). For comprehensive study of the villa, see Zarmakoupi 2010, which deals with virtually every aspect of the villa.
- 45 For recent work on the papyri, see Basile 1994; Gallo 2002; Sider 2005; Scholars at the Center for the Preservation of Ancient Religious Texts at Brigham Young University have been carrying out multi-spectral imaging on papyri in order to make the burnt scrolls readable.
- 46 De Caro 2008, 23, observes that gardens were a fundamental element in Roman villas on the Bay of Naples.
- 47 Romizzi 2001, 150.
- 48 Deiss 1985, 61.
- 49 Deiss 1985, 61–2; Mattusch 2005, 276–82; see p. 372 for a table listing finds, find spots, materials, and subject matter of sculpture found in garden A.
- 50 See, for example, Neudecker 1988, 105–20.
- 51 Purcell 1996a, 123.
- 52 For a more detailed discussion of the villa's sculpture, see Chapter 2 in this volume.
- 53 The new excavations at the villa have not explored this terrace to determine if it was accessible from the seaside. There was another artificial terrace that was accessible closer to the sea. On it was a building which the excavators describe as a grand salon and which may have served as the principal entrance to the villa from the sea. See De Simone and Ruffo 2003, 301–11. The presence of such an entrance in the southeast sector of the villa is not surprising; it was below the *atrium* and would have allowed important guests to arrive by sea.
- 54 Pliny, *Ep.* 2.17, 5.6; Cicero, *Att.*, 14.13.1; Purcell 1987a, 187–203. See Viitanen 2010 for a treatment of the visibility of the villa in the landscape.
- 55 For a literary parallel, see Pliny the Younger's discussion of the larger landscape from his Laurentine villa in *Ep.* 2.17.3, 12–14, 18, 27–9.
- 56 Often, these villas also had producing gardens.
- 57 See Pesce 2004 for a brief overview of many of the Stabian villas. See Zarmakoupi 2014 for a recent study on villas near the Bay of Naples. On the recent excavations at the Villa Arianna, Stabiae, see Gleason 2010.
- 58 For a provincial example, see Silin below.
- 59 See Marzano 2007, 13–15, 47–81. She argues for a more nuanced view of their economic nature, pointing out that raising fish and other economic endeavors were important.
- 60 Royo 1999, 3, 9–21. On the differences between urban *domus* and the suburban *horti* and villas, see Royo 1999, 195–207.
- 61 Pliny, *HN* 15.136–137, *Suet.*, *Galb.* 1.1; Cass. Dio 48.52.3–4. No firm archaeological evidence directly connects the villa to Livia.
- 62 Liljenstolpe and Klynne 1997–8, 130–4; Klynne and Liljenstolpe 2000, 223–32.
- 63 Liljenstolpe and Klynne 1997–8, 142.

- 64 Liljenstolpe and Klynne 1997–8, 145–46; Klynne and Liljenstolpe 2000, 231–2. None of the frescoes from the garden terrace had any garden motifs, A. Klynne, pers. comm.
- 65 Klynne and Liljenstolpe 1997–8, 230.
- 66 Klynne and Liljenstolpe 1997–8, 226; Pinto-Guillaume 2002, 37–58. A small excavation directed by Klynne in September 2007 revealed a row of at least forty *ollae perforatae* along the southern part of the garden terrace. A. Klynne, pers. comm.
- 67 Klynne 2005, 5–6. Also, see Kellum 1994, 212; Reeder 1997; Reeder 1997a; Reeder 2001; and Klynne and Liljenstolpe 2000, 121–8, for debates on the location of the grove. No botanic evidence has confirmed the presence of a laurel grove.
- 68 Klynne 2005, 5. Eeva-Maria Viitanen’s doctoral work, Viitanen 2010, on villas is the first comprehensive study of the visibility of the Roman villa in Italy and has greatly enriched our understanding of “how being seen” affected the placement of the villa in the landscape and its design.
- 69 The idea of the cinematic view has been noted by K. Gleason and B. Bergmann. Also, see O’Sullivan 2011, 497–532, on motion and the experience of the framed view in Roman art and architecture.
- 70 Purcell 1987a, 185–203.
- 71 Klynne and Liljenstolpe 2000, 223. While the mosaics still exist, only the preparation for the rest of the floors survives.
- 72 In many cases, the new *ollae perforatae* were placed on top of the old, broken *ollae perforatae*, which were then positioned horizontally rather than vertically in the garden, suggesting a replanting. Klynne and Liljenstolpe 2000, 224.
- 73 Klynne and Liljenstolpe 2000, 224.
- 74 Klynne and Liljenstolpe 2000, 221–2.
- 75 Messineo 1984, 65–84.
- 76 For recent treatments, see Kellum 1994, 211–24; Reeder 2001. The only monograph on the garden paintings remains Gabriel 1955. See also Chapter 11 in this volume.
- 77 For a recent treatment of gardens there, see Bergmann 2002. Current excavations around the pool may yield further evidence that refines and enhances our picture of gardens at that villa.
- 78 Salza Prina Ricotti 1987.
- 79 Alarcão and Etienne 1987, 69–71; figs. 1, 11, and 12.
- 80 Kuttner 2003, 114–35, esp. 120–21; Lavagne 1988, 515–58, esp. 532–7; Neudecker 1988, 220–3. For a recent summary of the villa, see Marzano 2007, 456–8.
- 81 Salza Prina Ricotti 1987, 138–69. Kuttner 2003, 104–13, also describes the Sperlonga grotto as a water garden and a type of grand or designed landscape.
- 82 There were a number of other sculptural works that were found in the villa and in the grotto-cave. A statue of Ganymede being abducted was also displayed (Newby 2002, 132). It is Flavian in date (Neudecker 1988, 221). Ganymede is believed to have been on a rock-cut platform above the mouth of the cave, where a replica now exists. A series of *putti*, dating to the late Republic, may have been displayed on the central dining platform in the rectangular basin. See Neudecker 1988, 220–3, for a complete catalog of the sculptures from Sperlonga.
- 83 Carey 2002, 44–6, n. 6. The date is based on the masonry in the cave; however, there is still not universal agreement about the dating of the placement of the sculpture. Also see Carey 2002, nn. 1–5, for a complete bibliography of the scholarship and a summary of the debate over the dating of the sculptural groups.
- 84 Kuttner 2003, 117.
- 85 Lavagne 1988, 524.
- 86 Kuttner 2003, 120. This group is an example of the Pasquino group, where a warrior held the dead body of another. Scholars debate whether the warrior was Aeneas or Odysseus. For a summary of the arguments, see Kuttner 2003, 120, n. 70. In any case, both interpretations suit the Homeric theme of the sculpture here.
- 87 Hom., *Od.* 9.190–630, for the story of Polyphemos.
- 88 Hom., *Od.* 12.241–828, for the story of Scylla.
- 89 Kuttner 2003, 121; Salza Prina Ricotti 1987, 168.
- 90 Salza Prina Ricotti 1987, 169.
- 91 On landscapes of allusion, see Bergmann 2001, 154–66.
- 92 Kuttner 2003, 117.
- 93 A. Kuttner, pers. comm.
- 94 Kuttner 2003, 121.
- 95 Suet., *Ner.* 31; Tac., *Ann.* 15.42; Griffin 1984, 137.
- 96 Cf. Purcell 1987a, 187.
- 97 Messineo 1984, 65–84; esp. 71–2, 75, 81; figs. 12, 21a–b.
- 98 Macaulay-Lewis 2006.
- 99 While draining the space, which was naturally swampy, might have improved the terrain, Nero’s creation of an artificial lake and landscaped gardens for his own use did not endear him to his critics. It did not provide a public benefit the way that Agrippa’s modifications to the Cloaca Maxima had improved drainage in the Forum Romanum.
- 100 Panella 1995, 51–5.
- 101 Purcell 2001; Macaulay 2006.
- 102 Purcell 1996a, 132–5; D’Arms 1998.
- 103 D’Arms 1998, for the ancient sources, see nn. 31–2; Plutarch, *Pomp.* 44.3.
- 104 Beard 1998.
- 105 Grimal 1984, 161–64; see Beard 1998, 23–33.
- 106 Griffin 1984, 139–42.

- 107 *S.H.A., Hadr.*, 26.5.
- 108 Boatwright 1987, 134–35; MacDonald and Pinto 1995, 8. There was a Republican villa on the site before Hadrian's Villa.
- 109 MacDonald and Pinto 1995, 32–8.
- 110 *S.H.A., Hadr.* 26.5. Scholars have also tried to do this with the text of Vitruvius and other archaeological remains; in particular, they have applied the names of the rooms of the *domus* that Vitruvius discusses to known ruins. See Mau's (1899, 239–73, fig. 110) treatment of the Pompeian *domus*. Although Mau's work is now over a century old, his approach dominated much of the theoretical framework on Roman domestic architecture. On the problems of this type of approach, see Allison 2001, 181–208. MacDonald and Pinto 1995, 6–8.
- 111 Jashemski and Salza Prina Ricotti 1992, 588–9.
- 112 Jashemski and Salza Prina Ricotti 1992, 593–5.
- 113 See Chapter 14 in this volume.
- 114 Purcell 1982; Platts 2007.
- 115 For Vigna Barberini, see Villedieu 2001; for the Domus Augustana's circus-garden, see Tomei 1992.
- 116 For a detailed treatment, see Hoffmann 1980.
- 117 Salza Prina Ricotti, 1987, 179.
- 118 MacDonald and Pinto 1995, 77.
- 119 De Franceschini 1991, 202.
- 120 De Franceschini 1991, 49–55. A number of Egyptianizing works were discovered; however, it is unclear whether they were originally located there or were perhaps displayed in the nearby Antinoeion.
- 121 Mari and Sgalambro 2007; Salza Prina Ricotti 2003–4.
- 122 Mari and Sgalambro 2007, 86 propose this. The presence of a square concrete foundation, 3 × 3 meters, suggests the presence of a base for an obelisk or some structure; however, there is no direct evidence from the site to confirm that the Barberini obelisk was a possible one in the Antinoeion.
- 123 Mari and Sgalambro 2007, 89, nn. 7–8.
- 124 See Chapter 5 in this volume.
- 125 Adembri and Mari 2006, figs. 25–6 (72–3) and fig. 8 (94). These three figures show a hedge around the temples and no plantings between the temples. The placement of date palms is also inconsistent.
- 126 Mari and Sgalambro 2007, 89. It is somewhat unclear from the plans published in Mari and Sgalambro exactly where these four central beds were positioned. Figure 5 does not show two sets of two parallel beds that may have framed a central obelisk, but rather one long cut on the northeast side of the base and a shorter parallel bed on the northwestern side of the base. Another cut is located to the side of the northern temple. Reconstructions do not show these beds: Mari and Sgalambro 2007; Salza Prina Ricotti 2003–4.
- 127 See Chapters 5 and 8 in this volume.
- 128 Kuttner 2003, 135–56.
- 129 After MacDonald and Pinto 1995.
- 130 The sculptures include four caryatids, a warrior, Hermes, Athena, two Amazons, a crocodile fountain, the Tiber River reclining, the Nile in a similar pose with a sphinx, and the she-wolf with Romulus and Remus. The wide-ranging subject matter does not support an identification of the space as a mock "Canopus." There are far more Egyptianizing motifs and sculpture present in other parts of the villa, such as the Antinoeion. It should also be noted that the present arrangement of the sculpture does not reflect their original find spots.
- 131 Mari and Sgalambro 2007; Salza Prina Ricotti 2003–4.
- 132 Salza Prina Ricotti 2001, 323–34.
- 133 Salza Prina Ricotti 2001, 325–30. An *olla perforata* was found here, as was a wall for a planting bed. See Salza Prina Ricotti 2001, 326, fig. 111.
- 134 Salza Prina Ricotti 2001, 377–81.
- 135 Climate and weather were considered when residences were built. See Vitruvius, *De Arch.* 6.1.1–4.
- 136 See Cunliffe 1998, 91–104, for a complete treatment of Fishbourne's gardens.
- 137 Axiality was a fundamental element of Roman domestic design. See Clarke 1991 and Wallace-Hadrill 1994.
- 138 Cunliffe 1998, 98. Cunliffe observes that the garden alternatively could have been planted in a style similar to the depictions of gardens in Roman wall paintings. However, he concludes that a lawn is more likely because such dense planting would have obscured the views and, more importantly, there was only a single bedding pit found in the garden.
- 139 Cunliffe 1998, 101.
- 140 Cunliffe 1998, 101–2, for a treatment of the garden terrace.
- 141 Plants were often used as symbols of defeated peoples; on the use of plants as political symbols, see Macaulay-Lewis 2008a. On competition in villas, see Platts 2011.
- 142 Van der Veen 2008, 102–4.
- 143 Cunliffe 1998, 104. Cunliffe 1998, 49–90. *Ollae perforatae* were also used to raise plants.
- 144 Cunliffe 1998, 107. Tiberius Claudius Togidubnus remains the popular figure with whom this villa is identified, but there is no epigraphic, historical, or archaeological evidence that confirms his ownership of the villa.
- 145 Cunliffe 1998, 49–90.
- 146 Balmelle 2001, 99–103, 128–9, 131–3, 359–62, 445.
- 147 Pailler 1984.

- 148 The debates over construction and ownership of high-status villas in the provinces reflect the larger issue of "Romanization" in the study of identity, history, and material culture of Rome's provinces. For some recent discussions of "Romanization," see Mattingly 2007; Fentress 2000; Hingley 2005; MacMullen 2008.
- 149 Percival 1976, 61–7.
- 150 Oates 1953, 92–101.
- 151 For scenes of agricultural production, see the mosaic of Dominus Julius (late fourth century AD) from Carthage, Dunbabin 1999, 118–19, fig. 122, and one from Caesarea (Cherchel), Dunbabin 1999, 117–19, fig. 121. For hunting scenes, see the mosaics from Althiburus, Dunbabin 1999, 113, fig. 115.
- 152 Percival 1976, 64–5.
- 153 Salza Prina Ricotti 1970–1.
- 154 For a discussion of the depiction of gardens and their meanings in Roman mosaics see Chapter 12 in this volume.
- 155 See Netzer 2001, 48–64, for a complete discussion. Agricultural production of some sort was present on the site before the construction of this palace and some unidentified utilitarian architecture remained during the construction of this palace; this may suggest that some type of agricultural activity, perhaps linked to the balsam grove, also took place on site after the construction of the palace.
- 156 Netzer 2001, 48. The Roman masonry techniques of *opus reticulatum* and *opus quadratum* were used here.
- 157 Netzer 2001, 49.
- 158 On decor, Room B90 had Third Style wall paintings that suggested the presence of foreign craftsmen to the excavators, Netzer 2001, 50; while the Ionic courtyard garden (B64) had First Style wall paintings, see Gleason 1993, 157.
- 159 For a discussion of the garden see Gleason 1987–8.
- 160 Pliny, *HN* 12.111; Gleason 1987–8; Macaulay-Lewis 2008a.
- 161 Platts 2007. See the discussion of the Stadium Garden at Hadrian's Villa earlier.
- 162 See Bedal 2004.
- 8 Jashemski 1979, 235–6; Jashemski 1993, 61–3 (Italy, Pompeii, 1.15).
- 9 See Jashemski 1993, 288–91 (Italy, Boscoreale, fig. 590).
- 10 Carandini 1985a, vol. 1.
- 11 For a reconstruction of the vegetation of a Roman *villa rustica* according to archaeobotanical research see Knörzer and Meurers-Balke 1990. A complete list of the vegetables and herbs that might have been cultivated in Roman kitchen gardens can be found in Knörzer 2007, 440–1.
- 12 Baatz and Herrmann 1989, 495, fig. 471.
- 13 Willems 1992; Van Ossel 1992, 363–5, fig. 155.
- 14 Swoboda 1964, 155–7, figs. 10–11, pl. 40; Jobst 1983, 156–60.
- 15 Thomas 1964, 201–10, figs. 107–8; Mócsy 1974, 173, fig. 32.
- 16 Cunliffe 1971, 135–8.
- 17 Zeepvat 1991, 56–8, fig. 54; Dickson 1994, 49.
- 18 Zeepvat 1991, 56–8, fig. 54; Dickson 1994, 49.
- 19 Detsicas 1983, 103–7, fig. 20; Philp 1984, 89–92, figs. 24, 33. Zeepvat 1991, 53–6, figs. 5.2, 5.3.
- 20 Griffith 1993; Goodburn 1978; Ma'te' 1995.
- 21 Van der Veen 1998, 234–5.
- 22 Cappers 2006.
- 23 Cappers 2006, 54–5.
- 24 Cappers 2006, 56.
- 25 Cappers 2006, 58.
- 26 See S. Sidebotham, "Emerald/Beryl Mines of Sikait" (Egyptus), catalog entry in Volume 2.
- 27 See Chapter 8 in this volume.
- 28 See Chapter 8 in this volume.
- 29 See Jashemski 1979, 201–18.
- 30 Columella, *Rust.* 4.18.
- 31 Pliny, *HN* 17.147, 16.212.
- 32 Pliny, *HN* 17.164–8.
- 33 Varro, *Rust.* 1.8.1.
- 34 Varro, *Rust.* 1.8.2.
- 35 Columella, *Rust.* 4.17.4.
- 36 Columella, *Rust.* 4.19.1–3.
- 37 Varro, *Rust.* 1.8.5.
- 38 Pliny, *HN* 17.187.
- 39 Columella, *Rust.* 3.21.11.
- 40 See Jashemski 1993, 61–3 (Italy, Pompeii, 1.15).
- 41 See Jashemski 1993, 105 (Italy, Pompeii, 111.7).
- 42 See Jashemski 1993, 67 (Italy, Pompeii, 1.20.1).
- 43 See Jashemski 1993, 97–8 (Italy, Pompeii, 11.9.6).
- 44 Carrington 1921 and Day 1932.
- 45 See Jashemski 1993, 288–91 (Boscoreale, no. 590).
- 46 A well-preserved vineyard has recently been uncovered by the German Archaeological Institute under the direction of Florian Seiler 350 meters southeast of the villa of Numerius Popidius Maior and 50 meters east of the villa della "cartucceria." See Vogel et al. 2015, 22.
- 47 Will 2004.
- 48 Pliny, *HN* 14.87; 21–71.
- 49 Carandini 1985a, vol. 1.

CHAPTER 4

- 1 Cato, *Rust.* 8.2.
- 2 Pliny, *Ep.* 2.17.
- 3 Mazois 1821–4, 83 and pl. 42.
- 4 Pliny, *HN* 19.60.
- 5 Columella, *Rust.* 10.90–5.
- 6 See Jashemski 1993, 226 (Italy, Pompeii, 1x.1.20/30); Mau 1899, 311.
- 7 See Jashemski 1993, 47–8 (Italy, Pompeii, 1.10.4); Maiuri 1933, 216–19.

- 50 Mattingly 1996, 228; Bradford 1949, pls. 2–5; Bradford 1957, pls. 25–8; Jones 1980, 85–100.
- 51 Columella, *Rust.* 3.1.3–10.
- 52 Cato, *Rust.* 6.4; Pliny, *HN* 14.146.
- 53 Hor., *Carm.* 3.16.
- 54 Van Nostrand 1937.
- 55 Columella, *Rust.* 5.4.1–7.4.
- 56 Columella, *Rust.* 2.5.4; 5.5.15; 12.21.4.
- 57 This research, along with the study of gardens in several other Spanish sites, is under the direction of Dr. Jodi Juan Tresserras of the University of Barcelona, with the collaboration of Dr. Francesc Burjachs, University of Rovira i Virgili; Dr. Juan Carlos Matamala, University of Barcelona; Julia Beltran de Heredia Bercro, Museu d'Historia de la Ciutat, Barcelona; Josep Maria Bosch i Cassadeval, Patromoni Culturali d'Andorra; Montserrat Comas, Museum of Barcelona; Sebastian Rascon, Servicio de Arqueologia; Acalia de Henares, Ana Lucia Sanchez Montes, Servicio de Arqueologia de Henares; and Ana Cristina Yanez de Aldecoa, Patrimoni Culturali d'Andorra. Also see Balil 1972.
- 58 Pliny, *HN* 14.71.
- 59 *CIL* 11.2029.
- 60 Sil. 3.393.
- 61 Strab. 3.3.1.
- 62 Pliny, *HN* 14.18; 14.56.
- 63 Pliny, *HN* 14.43.
- 64 Pliny, *HN* 14.68.
- 65 This and other evidence for vineyards and viticulture in southern Gaul are summarized by Boissinot 2001. [Editors' Note: the author would have been particularly excited by the publication of excavations at the site "Au-dessus de Bergis" (Gevrey-Chambet, Cote-d'Or), where very fine remains of a vineyard from the first to third centuries AD have been meticulously excavated and interpreted: Garcis et al. 2010.]
- 66 Wiethold 2003, 276–7; Ferdière et al. 2000; Toupet 2000.
- 67 Gauthier 1999; Gauthier and Martine 2004.
- 68 Carroll 2001, 63.
- 69 Auson., *Mos.* 21.160.
- 70 Brogan 1953, 133.
- 71 Gilles 1995.
- 72 König 1992; König 1995.
- 73 Pers. comm. Orsolya Dálnoki to Wilhelmina Jashemski, ca. 2004. See Dálnoki 2009.
- 74 Knörzer 1970.
- 75 Cass. Dio 49.36.2.
- 76 S.H.A., *Probus* 18.8.
- 77 Collingwood et al. 1937, 78.
- 78 Webster et al. 1967.
- 79 Williams 1977.
- 80 Brown et al. 2001.
- 81 See Pliny, *HN* 3.9.
- 82 Price and Nixon 2005.
- 83 Safrai 2003.
- 84 See R. Bagnall, Aegyptus, "Introduction" in Volume 2.
- 85 Haywood 1938, 23.
- 86 Haywood 1938, 51.
- 87 *CIL* VIII.12574.
- 88 Columella, *Rust.* 3.15.4; 5.5.4.
- 89 Columella, *Rust.* 5.4.1.
- 90 Varro, *Rust.* 1.2.6.
- 91 Frank 1933, 360.
- 92 Strab. 5.1.4, 12.
- 93 Strab. 5.4.20.
- 94 Strab. 5.3.5.
- 95 Strab. 5.4.3.
- 96 Columella, *Rust.* 3.8.5.
- 97 Carandini 1985a, vol. 1.
- 98 See Chapter 8 in this volume.
- 99 See Jashemski 1979, 251–64.
- 100 See Jashemski 1993, 73, plan 23.
- 101 Dimbleby and Grüger 2002, 183–4.
- 102 Columella, *Rust.* 5.10.5.
- 103 Pliny, *HN* 15.88–9.
- 104 Pliny, *HN* 15.50.
- 105 Pliny, *HN* 15.49–50.
- 106 Mattingly 1996, 226–7.
- 107 Mattingly 1996, 228.
- 108 Mattingly 1996, 227–8.
- 109 Mattingly 1996, 234–8.
- 110 Mattingly 1996, 238.
- 111 Mattingly 1996, 214–16.
- 112 Wiethold 2003, 269–82.
- 113 Knörzer and Meurers-Balke 1990, 242.
- 114 Dickson 1994, 52–3, 55.
- 115 Diod. Sic. 4.62.5; 14.48.5.
- 116 Athen. 12.541c–542a; Plut., *Mor.* 175b.
- 117 Ath. 5.40–4, p. 206d–209e.
- 118 Ath. 2.39, p. 52b–d; 3.20, p. 80e–81a, 2.33, p. 49d–e; 2.38, p. 52a–b.
- 119 Pliny, *HN* 23.103.
- 120 Paus. 9.24.4.
- 121 See Chapter 5 in this volume.
- 122 For a thorough discussion see Pruessner 1920.
- 123 See R. Bagnall, Aegyptus, "Introduction" in Volume 2.
- 124 Welles 1946.
- 125 Gasperetti and Crimaco 1993.
- 126 Cato, *Rust.* 8.2.
- 127 Brun 2000, 277.
- 128 Pliny, *HN* 13.26.
- 129 See R. Bagnall, Aegyptus, "Introduction" in Volume 2.
- 130 Mart. 6.80.
- 131 Pliny, *HN* 21.47.
- 132 Pliny, *HN* 21.61, 69, 174, 177, 184.
- 133 See R. Bagnall, Aegyptus, "Introduction" in Volume 2.
- 134 Pliny *HN* 21.42.
- 135 Ath. 15.38, p. 689d.

- 136 *CIL* vi.9283.
 137 *CIL* vi.9227.
 138 The mosaic is said to have been found on the property of a French physician in Sousse in 1937 or 1938 and brought by him to France before the independence of Tunisia in 1956.

CHAPTER 5

- 1 Carroll 2003, 60–5.
- 2 Hugonot 1989; Hugonot 1992, Wilkinson 1998.
- 3 Margueron 1992, 61
- 4 Isaiah 60.13.
- 5 Hes., *Theog.* 215–16; Skylax, *Periplus* 108.
- 6 Paus. 8.54.7; Jacob 1993, 31–44; Birge 1994; Porter 2001.
- 7 Pliny, *HN* 12.5.9, 12.5.11.
- 8 Livy 31.24.18; Plut., *Sull.* 12.3; see Delorme 1960, 53–4.
- 9 Pliny, *HN* 12.2.3.
- 10 For a discussion of the term and the written and physical evidence for sacred groves see Birge 1982. The rituals and mysteries performed in sacred groves are discussed by Bonnachere 2007.
- 11 On the various types of archaeological, textual, and epigraphic evidence for the κῆπος see Carroll-Spillecke 1989.
- 12 For an assessment of the two terms see Scheid 1993, 19 and Coarelli 1993, 52.
- 13 Karageorghis and Carroll-Spillecke 1992.
- 14 Hes., *Theog.* 190–8.
- 15 Hdt. 1.105.
- 16 Birge 1981; Karageorghis and Carroll-Spillecke 1992; Carroll 2003, 67.
- 17 Ael., *NA* 11.7.
- 18 Paus. 2.15.2; Miller 1977; Miller 1978; Birge et al. 1992, 85–96, figs. 1, 98–103.
- 19 Stat., *Theb.* 12.481–96.
- 20 Thompson and Wycherley 1972, 14, 135.
- 21 Strab. 9.2.33.
- 22 Thompson 1937; Camp 1986, 87; Carroll-Spillecke 1989, 31, 58, 72.
- 23 Plut., *Sull.* 12.3; App., *Mith.* 30.
- 24 Strab. 7.7.6.
- 25 Zachos 2003.
- 26 Mushmov 1912, no. 3076; Stoll 2000, 80, nos. 115–16.
- 27 *BMC*, 127, no. 29, pl. XVI.13; *BMC*, 129, no. 46, pl. XVI.14; *SNG Copenhagen*, nos. 31–3; Stoll 2000, 111, no. 177.
- 28 Livy 24.3.3–7.
- 29 Strab. 5.3.6.
- 30 Ael., *NA* 11.3.
- 31 Lauter 1968–9; Coarelli 1993, 48–51.
- 32 Coarelli 1993, 50.
- 33 Broise and Scheid 1993.
- 34 *CIL* 6.2065; *CIL* 6.2075; Broise and Scheid 1993, 150–1.
- 35 Andreae 1957; Richardson 1992, 213–14.
- 36 Lloyd 1982; Carettoni et al. 1960.
- 37 Carettoni et al. 1960, 73–4, pl. xx.15–16; Anderson 1982, 105–7; Lloyd 1982, 91–2, fig. 1; Richardson 1992, 286–7; Rizzo 2001, 238–9; Meneghini 2006, 158–9, fig. 19; Meneghini and Santangeli Valenzani 2007, 61–70, figs. 54–5.
- 38 Carettoni et al. 1960, 63–4, pl. xvi; Lloyd 1982, 93–5; Richardson 1992, 87–8.
- 39 Richardson 1992, 87.
- 40 Carettoni et al. 1960, 89–90, pl. xxviii.29; Packer et al. 1983; Packer 1997, 419.
- 41 Meneghini et al. 1990; Meneghini et al. 1998.
- 42 Carettoni et al. 1960, 113–14, pl. xxxiv.46; Lloyd 1982, 95–100, fig. 2; Richardson 1992, 1–2.
- 43 Atallah, *Adonis*; Motte 1973, 137–46; Carroll-Spillecke 1992a, 86, fig. 8.
- 44 Tomei 1992; Villedieu 1992.
- 45 Villedieu 2001; Rizzo 2001.
- 46 Jashemski and Salza Prina Ricotti 1992.
- 47 Carettoni, et al. 1960, 97–102, pl. xxxi.35–6; Richardson 1992, 111.
- 48 *CIL* 6.10234/*ILS* 7213.
- 49 Richardson 1992, 111.
- 50 Plut., *Publicola* 9.1.
- 51 *CIL* 6.2232/*ILS* 4181.
- 52 Cic., *Div.* 1.101; Richardson 1992, 413, 235. See also Chapter 8 in this volume.
- 53 *CIL* 6.9974/*ILS* 7574; *CIL* 6.33870/*ILS* 7471.
- 54 Ampolo 1993.
- 55 Guldager and Moltesen 1997, 166–7.
- 56 Livy 10.23.12; Pliny, *HN* 15.20.77; Richardson 1992, 150.
- 57 Pliny, *HN* 15.36.120–1.
- 58 Ov., *Met.* 14.836–7.
- 59 Verg., *Aen.* 6.124–211.
- 60 Strab. 5.1.2, 5.3.12; Suet., *Calig.* 35; Paus. 2.27.4.
- 61 Pliny, *HN* 16.57.132. On the wars with the Cimbri and Teutones, see Carroll 2002.
- 62 Carroll 2003, 70, 89, fig. 70; Carroll 2008; Carroll 2010.
- 63 Motte 1973, 121–37; Bernstein 1996.
- 64 Mau 1900; Maiuri 1942, 64–7.
- 65 Pliny, *HN* 15.36.120; Paus. 6.24.7.
- 66 Carroll and Godden 2000; see De Caro 1986 on earlier excavations.
- 67 Dobbins et al. 1997.
- 68 Jashemski 1979, 157–8.
- 69 Kent 1948; Carroll-Spillecke 1989, 36, 57; Osborne 1987, 46–7.
- 70 *IG* 14.645.
- 71 *IG* 12.1.781–3; Bousquet 1976, 10, 12; Birge 1982, 183–4.
- 72 Jashemski 1995.
- 73 Hauschild 1992; Coarelli 1993, 52.

- 74 RIC 2:68, no. 427; 127, no. 9; Macaulay-Lewis 2008a, 214–17.
- 75 Diod. Sic. 5.42.6–43.3, 5.44.5.
- 76 Strab. 16.2.6; Philostr., VA 1.16.
- 77 Levi and Levi 1967, 154–6, pl. ix; Carroll 2003, 71, fig. 55.
- 78 Luckenbill 1989, 310.
- 79 Polyb. 16.1.6.
- 80 Paus. 1.20.7; see Habicht 1998, 120–2.
- 19 Best known is Juv. 3, and cf. Pliny, *Ep.* 5.6 on the health-giving properties of his Tuscan estate.
- 20 Wallace-Hadrill 1998.
- 21 For the importance of water in the *horti* see Broise and Jolivet 1998, esp. 195–7.
- 22 Nielsen 1990, 3.
- 23 Nielsen 1990, 117; Yegül 1992, 313.
- 24 For Anemurium see Russell 1973, 201; Forum Baths at Ostia – personal observation; Large Baths of Hadrian's Villa, see De Franceschini 1991, 254–6; Suburban Baths: Jacobelli 1999, 223; Sardis: Yegül 1986, 26.
- 25 Eschenbach 1979, 17, pl. 32b.
- 26 Maiuri 1958, 151–2.
- 27 Mau 1899, 197, believed that the “palaestra” in the Forum Baths at Pompeii was a garden because it was too small to be a true *palaestra*, cf. Jashemski 1979, 164; Jashemski 1993, 183, 270.
- 28 Homolle 1899, 564–9. The inscription of 258 BC mentions digging, raking over, and covering a *sphaeristerion* with black earth, and a wall for ball games. The *sphaeristerion* in the context of the Hellenistic gymnasium was a space for boxing practice (a *palaestra* in Roman terms), but the word was used by the Romans for a ball court (Delorme 1960, 281–6), suggesting a physical similarity between the *sphaeristerion* and *palaestra* that allowed the term to be transferred.
- 29 Jashemski 1993, 235. There is nothing to suggest that the *palaestra* itself would be other than a completely open court for exercise with either a beaten earth or paved surface. The long space behind the bathing wing was reached by two narrow back doors from a side street, and from a corridor leading off the *frigidarium*, and has no windows opening onto it. The area south of the portico would have been a service area for the *praefurnia* and boilers, and presumably included a dry roofed space for storing fuel, which may have been the function of the portico. The tufa base at the southern end was identified by Mau 1899, 205 as being for a sundial; if so it presumably served the bath operators who needed to sound the time for opening and closing the baths.
- 30 Cf. Broise 1991, 61–3.
- 31 E.g., Roman Baths, Wroxeter: Ellis 2000, 41; Legionary Baths, Caerleon: Zienkiewicz 1986, 34–5; Baths of Philadelphia, Timgad: Ballu 1911, 101–9; North Baths, Volubilis: Thouvenot 1945, 157; Baths of Vergilius Capito and Hume-i Tepe Baths, Miletus: Gerkan and Krischen 1928, 23–5, 130–1.
- 32 E.g., the Augustan phase of the South Baths at Conimbriga: Alarcão and Etienne 1977, 42–3, pl. XXI; Hadrianic Baths at Lepcis Magna: Bartoccini 1929, 31–6.
- 33 E.g., Phase II baths, Glanum: Rolland 1958, 54–6; North Baths, Lugdunum Convenarum: Sapène 1945, 44–7; North Baths and East Baths,

CHAPTER 6

- 1 Grimal 1943, 181–4, 190–8, 260–4. For the gardens of Greek *gymnasia* and Roman luxury villas, see in this volume, respectively, Chapter 7, Chapter 2, and Chapter 3.
- 2 e.g. Nielsen 1990, 144; Yegül 1992, 179–80.
- 3 See DeLaine 1999, 8–9 for figures and problems with the evidence.
- 4 Nielsen 1990; Yegül 1992.
- 5 Jashemski 1979, 163–5; Jashemski 1993, 183, 235, 253.
- 6 Nielsen 1990, 80–2, 117; Yegül 1992, 313.
- 7 Mitford and Nicolaou 1974, 75–6, no. 47.
- 8 Karageorghis 1969, 190.
- 9 For recent accounts with bibliography see the relevant entries in *LTUR* 5, and for a recent overview see DeLaine 2009.
- 10 Caruso 1989–90; Lombardi and Corazza 1995, 90.
- 11 Cass. Dio 54.29.4.
- 12 Cass. Dio 53.27.1, 54.29.4; trees and statues of animals: Strabo, 13.1.19, Mart., *Epigrams* 3.19.1–2; decoration: Pliny *HN* 34.62, 35.26.
- 13 See Chapter 13 in this volume.
- 14 Grimal 1984, 197.
- 15 Pliny, *HN* 36.433–4; La Rocca 1998, 229–73.
- 16 Strab. 5.3.8 comments on the “ground covered with grass throughout the year” as one of the attractions of the Campus Martius.
- 17 DeLaine 1997, 20–1, 55–6.
- 18 DeLaine 1997, 24–31 for the mosaics. The internal courts of the Baths of Diocletian have very similar mosaic floors, which suggest that these may have been standard in the Imperial *thermae*. Here I am assuming that paved courts were in fact used as a form of *palaestra* for exercise of the Roman type, but note that Nielsen 1990, 163 believes that exercise areas were usually sanded and rarely paved, while Yegül 1992, 313 imagines that paving makes a space “unfitted for physical exercise.” On the other hand, Yegül 1992, 160–2 accepts that the courts in the Imperial *thermae* were *palaestrae*, while Nielsen 1990, 50–1, 162 believes that they were covered basilical halls (*basilicae thermarum*), but sees the function of these in general as substitutes for the *palaestrae*. Such problems of terminology versus function beset the study of ancient baths as much as that of ancient gardens.

- Cemenelum: Benoît 1977, 70–4 and 85–6. Payà i Mercé 2000; Díaz García et al. 2000.
- 34 Blanchard-Lemée 1998, 191–3.
- 35 Carthage: Lezine 1968, 33–6; Trier: Krencker et al. 1929, 241–7; Lepcis: Bartoccini 1929, plans opposite 22 and 88.
- 36 Alarcão does not include a garden in these baths in his catalog of the gardens of Conimbriga in Volume 2. For the original suggestion see Alarcão and Etienne 1977, 124–33.
- 37 de Vos 1979; Jashemski 1993, 362, 358–9.
- 38 Moormann 1988, 44–6.
- 39 Strocka et al. 1991, 59–60, figs 429–33; Jashemski 1993, 344.
- 40 Jashemski 1993, 280.
- 41 Jashemski 1993, 294, 307.
- 42 Baccini Leotardi 1978.
- 43 *apodyteria* – Baths of Buticosus, Maritime Baths; *frigidaria* – Baths of the Seven Sages, Baths of the Trinacria; latrines – Baths of Neptune; other cold rooms – Baths of the Philosopher, Baths of the Envious Man, Baths of the Christian Basilica.
- 44 Baccini Leotardi 1978, 41.
- 45 Caerleon, see Zienkiewicz 1986, 296; Thermes du Nord, Vaison-la-Romaine, see Guiral Pelegrín 2000, 117. The west wall of the terrace overlooking the *piscina* of the Small Baths at Djemila appears also to have been decorated with glass mosaic, but no trace of the pattern remains (Blanchard-Lemée 1998, 191).
- 46 Jacobelli 1991, 149–52; Jashemski 1993, 358–9.
- 47 Sear 1977, 94.
- 48 *Nymphaea*: Rome, villa baths from the Villa Massimo Negrone; Baiae, Baths of Sosandra. *frigidaria* pools and niches: Ostia, Baths of the Pharos; Argos, Roman baths; Lepcis Magna, Hunting Baths; Sabratha, Baths of Oceanus; Dougga, Licinian Baths; Maktar, SE Baths; Themetra, baths; Hippo, Baths of Caracalla. See Sear 1977, *passim*.
- 49 Barbet 2008, 12 and Tab. 11; Guiral Pelegrín 2000, 116.
- 50 Blanchard-Lemée 1998, 191–3.
- 51 Examples include: the so-called “Temple of Diana” and the Baths of Mercury at Baiae, the Baths of the Seven Sages at Ostia, the Hadrianic Baths at Lepcis Magna, the Antonine Baths at Carthage, and the baths at Gigithis. See Sear 1977, 112–15, 148–9, 155, 158.
- 52 Pliny, *Ep.* 5.6.36.
- 53 Pliny, *Ep.* 5.6.39.
- 54 Farrar 1998, 30–1.
- 55 Neudecker 1988; Manderscheid 1981, corrected for the Baths of Caracalla by DeLaine 1997, 265–7. Although there are rather more examples in the first catalog, the two are similar enough in size (fifty to thirty-eight) to allow comparison, and they share the advantage of being spread over time rather than biased by the chronological limits that affect the Vesuvian sites. More work needs to be done on sculpture from villas in other parts of the empire before a wider comparison is possible.
- 56 See *LIMC* 6, 196–7.
- 57 cf. Moormann 1988, 40–8.
- 58 Pliny, *HN* 19.19.50.
- 59 Manderscheid 1981, 31–3; DeLaine 1988, 26.
- 60 Guiral Pelegrín 2000, 117–18; Newby 2002; Khanoussi 1991, 317–18.
- 61 Barbet 2008, 11–12.
- 62 Moormann 1988, 44–6.
- 63 Thouvenot and Luquet 1951, 24–5.
- 64 Moormann 1988, 46.
- 65 Examples occur in town houses and suburban and rural villas in Italy and the western provinces. E.g., *Insula Occidentalis*, *Praedia* of Julia Felix, House of the Menander at Pompeii: Jashemski 1993, 201, 86–8, 47; Villa at Minori: Bencivenga et al. 1979. Villa at la Lalouquette, especially first- and second-century phase: Lauffray et al. 1973.
- 66 Villa of the Mysteries at Pompeii, San Marco villa at Stabiae, and Villa of Oplontis: Jashemski 1993, 282–3, d on Plan 120; 307, f on Plan 135; 294, 16 on Plan 131.
- 67 Fouet 1969, 71–86, cf. Bouet 1997–8, 217.
- 68 Widrig 1987, 252; Jashemski 1993, 113.
- 69 Sen., *Ep.* 86.10.
- 70 *Vita Sanctae Melaniae Iunioris* 18.
- 71 Pliny, *Ep.* 2.17.
- 72 Iacopi 1936, 23–9.
- 73 García Entero 2001, cat. no. 97, 172–4; cat. no. 127, 221–9.
- 74 Gros 2001, 330–2 and fig. 370.
- 75 Stat., *Silv.* 1.3.43–6.
- 76 Nennig: Mylius 1924 and Gros 2001, fig. 364 for the overall layout of the villa; De Boe 1971, 26–30. On the Roman preference for cultivated and controlled, often-urbanized landscapes see Purcell 1987a.
- 77 cf. Grimal 1984, 260–1.
- 78 There were gardens alongside the nearby “Canopus” (Jashemski and Salza Prina Ricotti 1992) but the area in front of the baths is yet to be explored.
- 79 DeLaine 1997, 77.
- 80 *Ep. Mor* 86.9.6. Cf. DeLaine 1992.
- 81 See Chapter 7 in this volume.
- 82 Bouet 1999, 46; Borlenghi 2011, 24–39.
- 83 Devijver and van Wonterghem 1981.
- 84 Devijver and van Wonterghem 1981, 47 assume that *campi* at which any kind of military training took place had to be outside the walls, but this is based on too literal a reading of Vitruvius (1.7.1), that temples to Mars should be outside the city near the walls, and specifically *ad campum*. Even if Vitruvius’ prescription did reflect the usual case at the time he was writing – which was not necessarily the case in other areas of architecture – and

- this was indeed the general trend in the Republic, it cannot have been an absolute rule given that Augustus could build the Temple of Mars Ultor inside the city walls without leaving any trace of adverse comment in the literary sources.
- 85 The interpretation of this building as a *campus* rather than a *gymnasium* avoids the difficulties felt by Richardson, 1988, 211–15 and discussed by Carroll (Chapter 7 in this volume), that the building lacked the other normal attributes of a gymnasium such as *exedrae*, baths, or other training rooms.
- 86 cf. Vit. 5.11.4 on the shaded walks in the area immediately outside his Greek *palaestra*.
- 87 Maiuri 1939.
- 88 Maiuri 1958, 136–7 notes, however, that the swimming pool had already been abandoned before the eruption; Yegül 1993 develops this idea further. Borlenghi 2011, 155–60, however, argues that this should not be seen as a *campus* but as a sanctuary to Cybele, and the swimming pool as a fishpond; he does not mention the trees.
- 89 Devijver and van Wonterghem 1994, 1055, and the catalog in Borlenghi 2011.
- 90 For this feature of Rome see the entry in *LTUR* 4, 93–4. Devijver and van Wonterghem 1981, 443 argue that so close is the connection of *campus* to public swimming pools, inscriptions relating just to *piscinae* in a public context imply also *campi* as their setting. This may have been the case with the Piscina Publica; in any case this public facility suggests an area set aside for physical training and public relaxation.
- 91 Bouet 1998, esp. 476–7.
- 92 For this see Nielsen 1990, 80–2, although she concentrates on examples where the *palaestrae* are absent. According to the recent publication, the civic baths at Wroxeter had a *natatio* surrounded by “a thick concrete floor” beside a possibly sanded *palaestra* to the west, and a larger area (ca. 3,000 m²) with a “hard-packed trampled” surface of brick and tile chippings to the east, in addition to a “basilica,” which presumably functioned as an interior *palaestra* (Ellis 2000, 41, 72–4, 81).
- 93 Zienkiewicz 1986, 125–8.
- 94 e.g., Thermes Sud, Saint-Michel-du-Touch, and other examples in Bouet 1998, fig. 7.2. Note the reservations expressed by Borlenghi 2011, 65–71 about the identification of these as *campi*.
- 95 Torelli 1991.
- 3 Ar., *Nub.* 1002–19; Pl., *Leg.* 6.761B–C; Diog. Laert. 3.7.
- 4 Plut., *Vit. Cim.* 13.
- 5 [Plut.], *Decem Orat.* 841C–D.
- 6 Marrou 1956, 40–5.
- 7 Delorme 1960, 272–315.
- 8 Hoepfner 2002, 67–80.
- 9 Marrou 1956, 107; see also Delorme 1960, 317–36.
- 10 Plut., *Vit. Thes.* 36.2; Paus. 1.17.2.
- 11 Thompson and Wycherley 1972, 16, 205, 125; Travlos 1971, 233–41, 578–9; Camp 1986, 175–19.
- 12 Travlos 1971, 42–3, figs. 59–61.
- 13 Hoepfner 2002, 56–62.
- 14 Paus. 1.18.9.
- 15 Paus. 1.20.7.
- 16 Travlos 1971, 340, 579.
- 17 Travlos 1971, 345–7.
- 18 Suet., *Ner.* 12.3, 24.
- 19 Suet., *Ner.* 12.3.
- 20 Tamm 1970; Richardson 1992, 183, 393–5.
- 21 Vit. 5.11.
- 22 Zanker 1998, 50–1. On the Roman equation of gymnasium with baths see Delorme 1960, 241–50.
- 23 S.H.A., *Alex. Sev.* 25.4–5.
- 24 Cass. Dio 68.15, 69.4.
- 25 Della Corte 1924, 44–70; Mau 1908, 171–3; Delorme 1960, 228–30; Jashemski 1979, 160–1, fig. 246; Jashemski 1993, 91–2; Dickmann 1997, 125–7; Zanker 1998, 47–9, 114–16.
- 26 Zanker 1998, 114–16.
- 27 Richardson 1988, 211–15.
- 28 Jashemski 1979, 160–1. The discovery of carbonized tree trunks at the so-called Great Palaestra in Herculaneum also suggests some sort of planting there: Jashemski 1993, 275–6.
- 29 Ar., *Nub.* 184–6. On the schools see also Marrou 1956, 40–5, 59–60; Motte 1973, 411–29.
- 30 Carroll-Spillecke 1989, 30–1, 56.
- 31 Dio. Laert. 5.51–2.
- 32 Clarke 1971, 59.
- 33 Dio. Laert. 4.1.
- 34 Dio. Laert. 10.17.
- 35 Dio. Laert. 10.17–21.
- 36 Dio. Laert. 4.60.
- 37 Plut., *Vit. Sulla* 12.3; App., *Mith.* 30.
- 38 Cic., *Fin.* 5.1–3.
- 39 Cic., *Fam.* 13.1; *Att.* 5.11.6.
- 40 Hor., *Epod.* II.2.45; see Clarke 1971, 60.
- 41 Strab. 9.1.17.
- 42 Heliodoros, *Aethiopica* 1.16.5.
- 43 Oliver 1938, 496–7.
- 44 *IG* 2² 1099; Clarke 1971, 78.
- 45 Dontas 1971; Frantz 1988, 65.
- 46 Strab. 17.1.8–10.
- 47 Marrou 1956, 189–91.
- 48 Orru 2002.
- 49 Dio. Laert. 5.52, 10.21.

CHAPTER 7

- 1 Cameron 1969.
- 2 Delorme 1960, 51–61; Travlos 1971, 42–51, 340–1, 345–7; Carroll-Spillecke 1989, 28–31; Hoepfner 2002, 56–62; Carroll 2003, 50–2.

- 50 Thompson and Wycherley 1972, 114–16; Travlos 1971, 432–8; Camp 1986, 187–91.
- 51 Travlos 1971, 244–52, 579; Willers 1990, 14–21; Hoepfner 2002, 63–6.
- 52 Cass. Dio 69.16.
- 53 Paus. 1.18.9.
- 54 Templum Pacis: Carettoni et al. 1960, 73–4, pl. xx.15–6; Lloyd 1982, 91–2, fig. 1; Richardson 1992, 286–7; Rizzo, S. 2001, 234–43, fig. 27; Porticus of Pompey: Carettoni et al. 1960, 103–7, pl. xxxii.37–8; Gleason 1994; Carroll 2003, 55–8, fig. 42.
- 55 Willers 1990, 18.
- 56 Cass. Dio 72.31.3.
- 57 Carroll-Spillecke 1989, 63–5; Zimmer 1994; Hölscher 1994; Häuber 1994; Dickmann 1997, 127; Zanker 1998, 138–42, 168–74; Carroll 2003, 50–4.
- 58 Cic., *Fin.* 5.2.
- 59 Varro, *Rust.* 2.2.
- 60 Cic., *Att.* 1.4, 1.6, 1.8–11.
- 61 Cic., *De Or.* 1.7.28.
- 62 S.H.A., *Hadr.* 26; Carroll 2003, 58–9, figs. 43–4.
- 63 Brands 1994, 247–52.
- 64 Ricotti 1987, 175–8, figs. 13–20.
- 65 Jashemski and Salza Prina Ricotti 1992.
- 66 S.H.A., *Hadr.* 26.5; Brands 1994, 255–6.
- 67 Eunap., *VS* 483.
- 68 Frantz 1988, 37–48; Camp 1986, 202–11.
- 69 Camp 1986, 202–11.
- 70 Thompson and Wycherley 1972, 111–14; Thompson 1988.
- 71 Camp 1986, 200.
- 72 Polenz and Póczy 1986, 124, fig. 47.
- 73 Koppel 1988; Chrzanowski et al. 2001; Bruneau 1970, 590; Brun 1990, 103.
- 74 Caballos Rufino et al. 1999, 75–6.

CHAPTER 8

Information and bibliographic references for gardens included in this essay can be found in Volume 2 under their geographic locations.

- 1 Jashemski 1979, 141–53.
- 2 Jashemski, 1993, 256, no. 531.
- 3 For the fuel consumption of a Roman pyre, see Noy 2000, 37; Bodel 2004, n. 51. For boxwoods at tomb sites, see Mart. 1.88 (see below, n. 91). For cypresses, see the classic study of Lajard 1854, 324–47, and Connors 1992.
- 4 As, for example, with a small cemetery being excavated near Modène (Le Vaucluse), in which sixteen tombs unsystematically distributed throughout a quadrangular perimeter of planting trenches seem to bear little relation to a regular series of parallel trenches extending perpendicularly off one of the long sides of the enclosure.
- 5 Cic., *Phil.* 9.14, *statuae intereunt tempestas, vi, vetustate, sepulchrorum autem sanctitas in ipso solo est, quod nulla vi moveri neque deleri potest, atque, ut cetera exstinguuntur, sic sepulchra sanctiora fiunt vetustate*, “statues perish from the weather, from violence, from age; the sanctity of tombs, however, lies in the soil itself, which cannot be moved or destroyed by any force, and just as other things are extinguished with age, so tombs become more venerable with age.”
- 6 According to the Augustan jurist Iuventius Celsus (cited by Ulpian, *Dig.* 11.7.2.5): “The entire place which is set aside for a burial does not become a *locus religiosus* but only to the extent that the body is inhumed.” A rescript of the emperor Hadrian later exploited a popular etymology associating Latin *monumentum* (“tomb monument”) with *munire* (“to build”) in order to extend the protection to “what is built for the sake of protecting that spot in which the body is laid” (*id quod monumenti, id est causa muniendi eius loci factum sit, in quo corpus impositum sit*, Macer, *Dig.* 11.7.37.1).
- 7 Papinian, *Dig.* 18.1.73.1, *intra maceriam sepulchrorum hortis vel ceteris culturis loca pura servata, si nihil venditor nominatim excepit, ad emptorem pertinent. Cod. Iust.* 3.44.9, *agrum purum monumento cohaerentem profani iuris esse*. Ulpian, *Dig.* 11.7.2.4, defines the concept of the *locus purus*, religiously “clean” land, unencumbered by restrictions of use, as “a place which is neither sacred (*sacer*) nor holy (*sanctus*) nor religious (*religiosus*) but seems to be free of all designations of this sort.” See further De Visscher 1963, 55–60, esp. 58–9, on the consistency of Imperial legislation on the subject from the beginning of the second century down through the middle of the fourth century, and Fabbrini 1968.
- 8 Rome: *CIL* 6.22518, *hic locus cum hor/tulo suo religioso et aedificiis suis / muro cinctus ad sepulchrum ... pertinet*; Via Latina: *CIL* 6.29961, *hic locus macerie clusus / siue is hortus est plus minus / quincumque iugeri et siqua / receptacula sunt sub castello / intra eandem maceriam / huic monumento cedit*; Tibur: *CIL* 14.3797 = *ILS* 8336, *hic locus ita uti maceria clusus est ad religionem sepulturae ...*; Fundi: *AEpigr* 1914, 219, *hic locus maceria clusus cum eo / quidquid in eo est cum hac maceria / sanctus religiosus est*; further, below n. 78.
- 9 For the social and material fabric of the urban periphery, see, e.g., Susini 1978, 356–7; Patterson 2000, 93–5, 102–3.
- 10 Roman land surveyors had much to say about the legal status and technical definition of *subseciva*, which were problematic: Julius Frontinus, *De agrorum qualitate*, provides a basic description: “Certain areas that protrude beyond the type of land which is curved or has angles, and are divided off by straight lines, are called *subseciva*, that is, pieces of land that remain when the boundary lines have cut them off and retain the character of peripheral areas” (trans. Campbell

- 2000, 83.31–9; cf. Agennius Urbicus, *De controversiis agrorum* 39.4–5; *Commentum de agrorum qualitate* 55.33–42, 69.21–32; Siculus Flaccus, *De condicionibus agrorum* Campbell 131.1–7, 14–25; with Campbell's discussion 320–1). Vespasian tried to raise money by reclaiming from private holders throughout Italy illegally occupied *subseciva* originally assigned to colonial territories but was resisted by the landlords and relented. The status of the land remained ambiguous until Domitian granted the holders full ownership of it as "occupied land" (*ager occupatorius*), the status assigned to territories staked out as private claims by the first Roman settlers in newly conquered enemy territory; cf. Campbell 2000, 344–6, 472. In the centuriation of colonies, the *subseciva* might be large (more than 100 *iugera*, ca. 62 acres) or small (less than 50 *iugera*: *Commentum de agrorum qualitate* 55.40–2); with private land divisions, measured in *actus* (120 feet) and feet, the *subseciva* were of course much smaller.
- 11 For tombs as boundary markers, see Papinian, *Dig.* 10.1.11; Campbell 2000, 221.23–30 (*De sepulchris*), 223.32–7 (*ex libris Dolabellae*), 253.41–2, 255.8–9 (Latinus and Myrsontius), 257.22–5.
 - 12 Illustration of *subseciva*, accompanying the excerpts of Dolabella's book on land-surveying in the oldest surviving manuscript (Cod. Guelf. 36.23a, sixth century) of the *Corpus Agrimensorum Latinorum*, after the reproduction in Blume et al. 1848–52.
 - 13 "You can recognize in the following way boundaries associated with tombs or receptacles for ashes ... since you should find near the tomb either box-trees, or also ashes, or cooking pots, or broken earthenware vessels, or indeed intact ones. In order to discover if a tomb marks a boundary, look five feet away from it or turn the earth over with a plough. If you find the signs mentioned, then the tomb marks a boundary" (transl. Campbell 2000, 223.32–40 [Dolabella]), with 439. Like most other texts in the *Corpus Agrimensorum*, the brief excerpt of Dolabella's writings is handed down in the oldest surviving manuscript (probably of the sixth century) with accompanying illustrations, which perhaps date from as early as the fourth century but go back originally to the diagrammatic drawings that illustrated the technical instructional manuals of surveyors during the early Empire. In accordance with their didactic purpose, these functional diagrams did not attempt to represent details faithfully but instead provided schematic representations designed to clarify the text: see Campbell 2000, xxiii–xxvi. Siculus Flaccus, *De condicionibus agrorum*, 106.14–16 Campbell, adds that in rocky and infertile places tombs could be found even in the middle of properties.
 - 14 Jashemski 1979, 149–50, identified another possible Pompeian funerary garden in the area around the imposing tomb of Eumachia outside the Nuceria gate.
 - 15 CIL 3.754 = CLE 492 (Nicopolis on the Danube) vv. 20–5, *carmini, possessor, faveas precor, ac precor ut tu / hanc tituli sedem velles decorare quodannis / et foveas aevi monumentum tempore grato, / roscida si rosula seu grato flore amaranthi / et multis generum pomis variisque novisque, / ut possit toto refoveri temporis anno*. The clumsiness of the expression (cf. Bücheler in CLE ad loc.) does not obscure the clarity of the sentiment. CIL 6.342 = CLE 1064, *sit tibi terra levis tumuloque adsurgat amomum / et cingant suaves ossa sepulta rosae*. For further examples, see Lattimore 1942, 135–6 and Cugusi 1985, 267–73.
 - 16 Tomb with garden: CIL 6.8862 (Augustan); 10654; 13102; 13823; 15593; 15640; 17992; 22518; 23090; 29961; 30073; 30506 (?); *AÉpigr* 1898, 15 (Rome); CIL 14.396 (Ostia); *AÉpigr* 1925, 87 (Velitrae); CIL 5.2176 (Altinum); CIL 2^a 14,599 (Saguntum); IG vii, 3453 (?) (Chaeronea, Boeotia); Judeich 1898, no. 305 (Hierapolis, Phrygia); MAMA iv, 171 (Apollonia, Pisidia). Tomb and garden: CIL 6.7787; Gregori 1987–8, 176 n. 4 (Rome); *AÉpigr* 1985, 297 (Contrada Santissima, Masseria Spineto); Judeich 1898, nos. 57, 211 (Hierapolis, Phrygia). Funerary garden: CIL 6.10876; 12772 (Rome); CIL 3.2279 (Salonae).
 - 17 Quint. 7.9.5: "A third (type of ambiguity) comes from the use of compound words; for example, if a man instructs that his body be buried in a (un) cultivated place, and that a measure of land be set aside from his heirs for the purpose of safeguarding his ashes, an occasion for dispute may arise from the question whether he meant 'cultivated' [or 'uncultivated' land], *tertia est ex compositis, ut si quis corpus suum in culto loco poni iubeat, circaque monumentum multum agri ab heredibus in tutelam cinerum, ut solent, leget, sit litis occasio cultum [locum dixerit an incultum]*. Zump restored the end of the passage, but the required sense is obvious from the context.
 - 18 Petron. 71.6–7, *praeterea ut sint in fronte pedes centum, in agrum pedes ducenti. omne genus enim poma volo sint circa cineres meos, et vinearum largiter. Valde enim falsum est vivo quidem domos cultas esse, non curare eas, ubi diutius nobis habitandum est*.
 - 19 Petron. 38.1, *nec est quod putes illum quicquam emere. Omnia domi nascuntur: lana citrea, piper, lacte gallinaceum, si quaesiveris, invenies*.
 - 20 The *locus classicus* for the ostentatious productivity of villa agriculture and its offshoot, *pastio villatica* (villa pasturing, of more or less exotic edible animals in game parks), is the scene-setting introduction to the third book of Varro's *Res rusticae*, the so called "People's Farm" (Villa Publica) on the outskirts of Rome in 50

- bc (3.2.1–18), where Roman nobles discuss the foodstuffs yielded by their suburban and rural estates: see Linderski 1989 and Purcell 1995, 151–7. The butler ostentatiously shelling peas in Trimalchio's vestibule (Petron. 28.8) represents a similarly misguided imitation of such display.
- 21 Cf. Columella, *Rust.* 5.10.1, "Before you plant your seeds protect the perimeter of your orchard with walls or a ditch or a fence and deny access to it not only to cattle but to man, since if the tops are frequently pulled off by hand or gnawed away by cattle, the plants are never able to reach full growth": *modum pomarii, priusquam semina seras, circummunire maceris vel saepe vel fossa praecipio, nec solum pecori, sed et homini transitum negare, quoniam si saepius cacumina manus detracta aut a pecoribus praerosa sunt, in perpetuum semina incrementum capere nequeunt.*
- 22 Of the four types of barrier regarded by Varro (*Rust.* 1.14.1–4) as suitable for dividing and protecting farmland (ditches, hedges, wooden fences, and walls) the *maceria*, which he describes as the "most recent" (rather than "very recent": see TLL s.v. VIII.7.10–16 and below, note 23), was also the most durable and the most common around tomb gardens at all periods; but wooden balustrades (such as that depicted in a relief from the tomb of the Haterii: see Gregori 1987–8, 185) were sometimes employed, and simple post-and-rail fences (a subcategory of Varro's third type) may have been used in rural areas. For the Roman obsession with marking and protecting private property boundaries, see Campbell 2000, 468–71.
- 23 *Maceriae* and gardens: Plaut., *Truculentus* 303, Ter., *Ad.* 909, Cic., *Fam.* 16.18.2, etc. *Peribolos* by metonymy for "garden": IGRR IV, 1168 (Attaleia, Lydia); possible funerary examples: IGRR IV, 1605 (Thyaira, Cayster valley); Callender, *Studies*, p. 164 no. 23 (Sidamaria, Lycaonia); BÉpigr. 1939, 448 (Nazianzus, Cappadocia); see further Kubinska 1968, 144. Pausanias sometimes uses *peribolos* to mean "sacred grove" (e.g., 2.27.1, 2.30.7, 8.31.5): see Jacob 1993, 37–8.
- 24 *Isola Sacra*: Calza 1940; Baldassare 1987, 127–8 (sandy soil). Vatican necropolis: Steinby 1987, 92 and 2003; Toynbee 1971, 87–91. Aquileia: Toynbee 1971, 79–81; Reusser 1987. Sarsina (Pian de Bezzo): Ortalli 1987. For the importance of the *peribolos* in marking a *locus religiosus* also in Asia Minor, see Keil 1908, 553–4.
- 25 For the traditional pairing of tombs and villas, which led to a natural association of the commemorative function inherent in the first with the second, see Verzá-Bass 1998, 401–24 and Bodel 1997, 18–26.
- 26 See Maiuri 1943, 295–9; Jashemski 1979, 151–3; Jashemski 1993, 256, no. 528, 277–9, no. 568, 393 no. 147; Kockel 1983, 152–9, esp. 156, 158 (no. 8); 159–61 (no. 9); Kockel and Weber 1983. The two tombs and the shop (10) adjacent to them to the north have uniform brickwork; all four shops (10–11, 13–14) share at the rear a common wall with the garden; and the decoration of the fountain apse at the rear of the garden is of the same sort as that of the niche-tomb (9) facing the street. A low barrier at the west end of the fourth shop (14) separates this complex from a long service passageway (15) leading to a separate area of the villa courtyard where a slave shackled to an iron stake in the ground perished during the catastrophe. On the opposite side of the passageway a long uniform row of fourteen shops (16–29) behind a portico extending to the north fronts the substructures of the residential complex.
- 27 The evidence of a wine press and a graffito recording a partially complete work order for 1,300 sharpened stakes found at a modest *villa rustica* with adjacent tomb fronting the street exiting from the Vesuvius Gate suggests that the property may have included a productive vineyard (Della Corte 1921), but it is possible that the vineyard was located elsewhere: the agricultural tools found in quantity at the House of the Menander in town were clearly intended to be put to use outside of town.
- 28 I first learned of this important discovery from an unpublished paper by Eugenia Salza Prina Rocotti delivered in Rome in June 2003 and forwarded to me, with the author's consent, by Kim Hartswick. See now Zaccaria and Sgalambro 2007.
- 29 The drive was discovered and reported by Anna Maria Reggiani, superintendent of the archaeological zone of ancient Latium. In referring to the various parts of the villa complex, I adopt the labels used by Macdonald and Pinto 1995.
- 30 Popular in Egypt and the Greek East, the cult of Antinous was less warmly received in the Latin West (notwithstanding the well-known regulations of a Hadrianic funerary society of Diana and Antinous that met in a temple of Antinous at Lanuvium: *ILS* 7212) and was never officially recognized at Rome: see Boatwright 1987, 239–60, esp. 251–60. According to the fourth-century monk Epiphanius, Hadrian arranged to have the body of Antinous placed in a temple to him at Antinoöpolis in Egypt (*Ancorat.* 1.130b Holl). If so, the monument at Tivoli was a cenotaph rather than a tomb and belongs to a Roman tradition of cenotaphic monuments to divinized loved ones at villa sites that can be traced back at least as far as Cicero's plans for a shrine to Tullia at a suburban estate in the area of the Vatican, for which see Shackleton Bailey 1966, 5: 404–13; Bodel 1997, 22–3; Verzá-Bass 1998, 401–4; and Steinby 2003. Zaccaria and Sgalambro 2007 argue that the complex is an actual tomb.

- 31 For the reflection of the cult of Antinous in a new style of sculpted portraiture at the villa, see MacDonald and Pinto 1995, 149–50.
- 32 More rarely, a tomb garden is explicitly distinguished from a villa property in order to protect its inalienability: so a Roman knight “separated this *cepotaphium* from his house” beside the Via Ardeatina between the first and second milestone (CIL 6.355), in the region where more than a century later (from ca. AD 350) the cemetery of S. Balbina housed the remains of Pope Marcus and others (see Spera 2001).
- 33 The affectation of the term and the history of the phenomenon at Rome have been well remarked by (among others) Champlin 1982; Jolivet 1997, 196–205; Purcell 2001, 548–51; and Chioffi 1999, 52–3.
- 34 Pliny, HN 19.50–1: in XII tabulis legum nostrarum nusquam nominatur villa, semper in significatione ea hortus ... iam quidem hortorum nomine in ipsa urbe delicias agros villasque possident. primus hoc instituit Athenis Epicurus otii magister... Romae quidem per se hortus ager pauperis erat. Beard 1998, 28–9 remarks on Pliny’s blurring of the distinction between luxurious excess and productive simplicity (“always on the verge of collapse”) throughout the passage.
- 35 Cic., Att. 12.40.2 (May 9, 45 BC), triginta dies in horto fui, aptly rendered by Shackleton Bailey 2002: “I spent a month at the ‘homestead.’” The archaism was not recognized by some medieval copyists, who corrected the manuscripts to read (*h*)ortis. Att. 13.46.3 (August 12, 45) etiam de hortis Cluvianis egi cum Balbo, “I also discussed Cluvius’ suburban estate with Balbus”; cf. Att. 14.16.1 (May 2, 44 BC), conscendens ab hortis Cluvianis (“embarking from Cluvius’ estate”).
- 36 Horti Epagathiani Dadu[chiani]: CIL 6.10239, Horti Alli Filetiani: CIL 6.9240. Compare the successful petition of a tenant farmer of a kitchen garden (hortus olitorius) beside the Via Ostiensis outside Rome in AD 227 to a collegium of the Foundation of the Divine Faustinas, which owned the property, to allow him to erect his tomb monument (memoriosa) in a 20-foot square plot within the garden: CIL 6.33840 = ILS 7455. A gardener at Hierapolis in Phrygia was similarly granted 30 cubits of land to tend around his tomb: Judeich 1898, no. 293; Kubinska 1968, 146.
- 37 CIL 6.9583: C. Hostius C. l. Pamphilus medicus hoc monumentum emit sibi et Nelpiae M.l. Hymnidi et liberteis et libertabus omnibus postereisque eorum. Haec est domus aeterna; hic est fundus; heis sunt horti; hoc est monumentum nostrum: in fronte p(edes) XIII in agrum p(edes) XXIII.
- 38 Martial, for example, compares a window box in which “the garden (hortus) barely feeds a single caterpillar” (11.18.12), with a suburban estate: “You’ve given me, Lupus, countryside (rus) just outside the city; but I have a bigger country estate (rus) in my window” (1–2): see Linderski 2001.
- 39 LSJ 948: “tomb in a garden”; no change in the Supplement of 1968; in the later Supplement (1996), edited by P. G. W. Glare with A. A. Thompson, a revision (176): “garden with a tomb.”
- 40 Palladius, Scr. Eccl., Historia Lausiaca (recensio G) 18.5.
- 41 Moens 1984, esp. 14–15 (the tomb of Rekhmire) and 49–52; for the text, see Sethe 1909, 1167 C. In the layout of the concentric gardens, the practical necessity of locating the thirstier plants nearer the pool or well that irrigated them may have reinforced the symbolic significance of the water supply as the source of regeneration.
- 42 Kanopus (Alexandria), 5 BC: BGU 4.1118. Ibrahimiya (eastern suburban necropolis of Alexandria), late first or early second century: Fraser and Nicholas 1958 and Fraser and Nicholas 1962; BÉpigr 1959, 498. Rome, second or early third century: IGUR 2.836. Ilias, fourth century (?): Sterrett 1888, 424 no. 621.
- 43 Strabo 17.1.10. See Fraser 1972, 1: 26–7; 2: 81–3, nn. 185–8.
- 44 BGU 4.1118; Toynbee 1971, 95 and n. 309.
- 45 Diversity of production was, and is, a hallmark of the Mediterranean garden: see Horden and Purcell 2000, 220–4.
- 46 For a survey of Alexandrian tomb types, see Venit 2002, esp. 15–21 on the elements common to all periods.
- 47 See Venit 2002, 61–5.
- 48 Venit 2002, 65–7, emphasizes the theatrical aspects of the setting, whereas Kerkeslager 2003 prefers to see temple architecture underlying the axial arrangement. Whatever its antecedents, the principles of formality and symmetry remain central to the tomb’s design. For gardens in heroa (at Kalydon as early as the fourth century BC), see Carroll-Spillecke 1992b, 164 and for the interior gardens of the royal palaces, Strab. 17.1.9 with Carroll-Spillecke 1989, 38, 53, and Carroll-Spillecke 1992b, 169.
- 49 See Fraser and Nicholas 1958 and Fraser and Nicholas 1962, whose English translation I borrow and adapt; BÉpigr 1959, 498; De Visscher 1963, 197–224.
- 50 The matter is complex. According to Fraser and Nicholas 1962, 157–9, and De Visscher 1963, 207–12, the karpistes played the role of *adsertor*, an informant litigator or *delator*. For L. and J. Robert (BÉpigr 1959, 498), on the other hand, he was the “profiter,” hence the gardener.
- 51 Rome: IGUR 2.836. Pisidia: Sterrett 1888, 424 no. 621.
- 52 Venit 2002, 14: “Architecturally, monumental Alexandrian tombs have no identifiable fore-runners in the Hellenic world ... they find no

- explicit antecedents in Egypt either. Until their dissemination along the north coast of Egypt and throughout the Mediterranean, Alexandrian tombs adhered to a model specific to Alexandria alone."
- 53 Varro, *Rust.* 3.13.2–3; 3.5.8. Görler 1990, 173 notes Varro's inconsistency and provides helpful discussion of the Roman penchant for evoking Greek models in labeling. Varro himself recognized the inconsistent formation in Latin of denominative forms in reference to animal enclosures: *Ling.* 8.53–4.
- 54 Varro, *Rust.* 2.pr.2: *nec putant se habere villam, si non multis vocabulis retineant Graecis, quom vocent particulatim loca, procoetona, palaestram, <a>podyterion, peristylon, ornithona, peripteron, oporothecen.*
- 55 Varro, *Rust.* 3.4.3: *ex iis tertii generis voluit esse Lucullus coniunctum aviarium, quod fecit in Tusculano, ut in eodem tecto ornithonis inclusum triclinium haberet; 2.pr.5; 3.2.15, 3.3.1 (ornithon); 3.5.8 (ornithotrophion); 1.38.2, 3.3.6–7, 3.5.5, 3.5.13 (aviarium).*
- 56 For Varro's aviary at Casinum: *Rust.* 3.5.8–17. Merula: *Rust.* 3.3.6–7: *primus enim ille gradus anticus maiorum nostrum erat, in quo essent aviaria duo dumtaxat: in plano cohors, in qua pascebantur gallinae, et earum fructus erat ova et pulli; alter sublimis, in quo erant columbae in turribus aut summa villa. contra nunc aviaria sunt nomine mutato, quod vocantur ornithones, quae palatum suave domini paravit, ut tecta maiora habeant, quam tum habebant totas villas, in quibus stabulentur turdi ac pavones. 3.4.2: duo genera sunt ... ornithonis, unum delectationis causa, ut Varro hic fecit noster sub Casino, quod amatores invenit multos; alterum fructus causa, quo genere macellarii et in urbe quidam habent loca clausa et rure ...*
- 57 Vitruvius, *De Arch.* 5.11.4, with the helpful reconstruction by T. Howe in Rowland and Howe 1999, 253, fig. 88.
- 58 For the parallel usage of these terms in place of, or beside, *hortus* and *cepotaphium*, cf., e.g., *CIL* 10.3594 (Misenum): *in hoc munimento sive pomariolo; CIL* 14.2139 (Ostia): *hortulus sive pomarium quod est maceria cinctum; CIL* 6.7787: *monument(um) et uiridiar(ium) fecit; 6.11275; AEpigr* 1973, 433 (*viridarium*) (Rome).
- 59 *CIL* 6.11275; *CIL* 6.15526 (perhaps our earliest example, of an Imperial freedwoman Claudia Opsequens, who dedicates a "building with a field and orchards for the upkeep of her tomb" (Rome); Dennison 1898, 383–4 no. 27 (Puteoli); *CIL* 13.5708 = *ILS* 8379 (*testamentum Lingonis*, Langres); see also the texts from Misenum and Ostia cited in the preceding note.
- 60 For horticulture and fruit cultivation in the vicinity of Rome, see Carandini 1985; Purcell 1987, 36. For *pomarii* and market gardeners at Rome, cf. *AEpigr* 1905, 98 = *IGUR* n. s. 2, 6114 and Friggeri 1985.
- 61 See Keil 1908, 546, n. 1, 553, on *hypampelus* = "planted with vines," *pomarion* = *pomarium*, and Greco-Latin "loan-words" and translations in the Roman inscriptions of Asia Minor. For a tomb with vineyard at Rome, cf. *CIL* 6. 14890, *cum hypampelo et me[diano?]* ("with vineyards and a middle area (?)").
- 62 *CIL* 6.7787, *monument(um) et viridar(ium); 17073; 23808; 25658* (Rome); *AEpigr* 1973, 433 (Scarbantia, Pannonia); cf. *AEpigr* 1986, 25; *CIL* 6.11275 (Rome); *AEpigr* 1984, 722 (Savaria). For the basic Pompeian type, see Conticello 1993–4, 12.
- 63 The word caused trouble for copyists: transmitted at least twice as *viridium*, it was corrected by Lambinus at *Cic.*, *Att.* 2.3.2 and by Kiessling in his edition of *Sen.*, *Controv.* 10.pr.9.
- 64 Ulpian, *Dig.* 7.1.13.4: *Fructuarius causam proprietatis deteriore facere non debet, meliorem facere potest. Et aut fundi est usus fructus legatus et non debet neque arbores frugiferas excidere neque villam diruere neque quicquam facere in perniciem proprietatis. Et si forte voluptuarium fuit praedium, viridiaria vel gestations vel deambulationes arboribus infructuosas opacas atque amoenas habens, non debet deicere, ut forte hortos olitorios faciat vel aliud quid quod ad reditum spectat. Cf. Ulpian, *Dig.* 33.7.8.1, *Quibusdam in regionibus accedunt instrumento, si villa cultior est, veluti atrienses, scoparii, si etiam vir<i>diaria sint, toparii, si fundus saltus pastionesque habet, greges pecorum pastores saltuarii.**
- 65 Lactantius, *Div. Inst.* 2.12.15; further *TLL* s.v. "hortus" 3017.55–62 for other late Latin citations. For the Persian *paradeisoi* and their reception in Greece, see Xen., *An.* 1.2.7, 2.4.14, *Cyr.* 1.3.14, *Hell.* 4.1.11, 31 (Daskyleion), *Oec.* 4.13 (glossing *paradeisoi* with *kepoi*); further, Tuplin 1996, 80–131, especially 93 (etymology), 100–9 (on the distinction between hunting parks and botanical gardens), 113–14 (on the relation of *paradeisoi* to *kepoi* and groves), 120–4 (on the adoption and modification of the term in Greek), and 124–9 (on the common ground shared by *kepoi* and *paradeisoi*); Schuler 1998, 123–5 on the reception of the term in Hellenistic and Roman Asia Minor. For *paradeisoi* as Greek orchards or gardens (*kepoi*), see Diod. Sic. 5.19.2, Poll. 9.13, *P.Cair.Zen.* 33.3, *CIG* 2694b (Mylasa, Caria); Buckler and Robinson 1932, 15–16 (Sardis); further *LSJ* s.v. 2.
- 66 *Genesis* 2.9, 3.8. Adam's punishment was to till the soil and to "eat the plants of the field" (*Gen.* 3.18) – a relegation to agriculture, from heavenly fruit to laborious vegetables.
- 67 *IG XIV* 1134 = Peek 1955, 2027: ... / ⁵ οὐ βάτοι, οὐ τρίβολοι τὸν ἐμὸν τάφον ἀμφὶς ἔχουσιν, / οὐδ' ὀλολυγία νυκτερὶς ἀμπέταται, / ἀλλὰ με πᾶν δένδρος χαρίεν περὶ ῥίσκον ἀνέρπει / κυκλόθεν, εὐκάρποις κλωσὶν ἀγαλλόμενον / πωτᾶται δὲ πέριξ, λιγυρὴ μινυρίστρια ἀηδῶν, / ¹⁰ καὶ τέττιξ γλυκεροῖς χεῖλεσι λείρα χέων,

- / καὶ σοφὰ τραυλίζουσα χελειδονὶς ἢ τε λιγύπνους / ἀκρις ἀπὸ στήθους ἡδὺ χέουσα μέλος. / Πάτρων ὅσσα Βροτοῖσιν ἐράσμια, πάντ' ἐτέλεσσα, / ὄφρα καὶ ἰν' Αἶδη τερπνὸν ἔχοιμι τόπον. Another Roman funerary *paradeisos* is attested at Vasada in Pisidia: Sterrett 1888, 172 no. 280.
- 68 See Scheid 1993 and, for the special character of the *lucus Libitinae* associated with funerals, Bodel 1994, 6–13 (on *lucar*), 24–9.
- 69 Funereal groves: *CIL* 10.4104, *ILS* 6038 (Capua, Grove of the Decidii); *CIL* 5.8970, *ILS* 3962 (Aquileia); *CIL* 8.212, *CLE* 1552 (Cillium); *AEpigr* 1987, 685 (La Alameda, Baetica); *CIL* 13.8706 (Leiden); *CIL* 3.7545 (Tomis). *Schol. Dan. Aen.* 5.761: *ac lucus sacer additur Anchiseo: nemora ... aptabant sepulcris ut in amoenitate animae forent post vitam*. Musaeus in the underworld: *Aen.* 6.673. Vergil was sensitive to the funerary associations of trees, particularly cypresses: see Connors 1992. Epitaphs: e.g., *CIL* 6.30113 = *CLE* 1262 (Rome); *CIL* 8.212 v. 59 = *CLE* 1552 (tomb of the Flavii, Cillium); *CIL* 8.8870 = *CLE* 501 (Tupusuctu, Mauretania Caesariensis). For Elysian themes on a famous sarcophagus of Hadrianic date from Velletri, see Andreae 1963, 62–4.
- 70 According to Gleason 1994, Augustus's "restoration" of Pompey's theater complex (*Res Gestae* 20), which involved construction of an elaborate stage building, hid the temple from view. For Caesar's plans of the mid 40s BC, cf. *Cic., Att.* 13.20.1, 13.33a.1, 13.35–361; *Suet., Iul.* 44.1. For good overviews of the late Republican and Augustan development of the Campus Martius, see Wiseman 1996 and Haselberger and Romano 2002, 74–7. One of what was presumably originally a series of boundary stones defining the area was found near the northeast corner of the Saepta (*CIL* 6.874). According to its text, "Whatever land is inside the boundary stones in the direction of the field (*campus*) Caesar Augustus bought privately and made public": *id quod intra cippos ad camp(um) versus soli est Caesar August(us) redemptum a privato publicavit*; cf. Coarelli 1997, 553.
- 71 Strabo 5.3.8, διόπερ ἱεροπρεπέστατον νομίσαντες τοῦτον τὸν τόπον καὶ τὰ τῶν ἐπιφανεστάτων μνήματα ἐνταῦθα κατεσκεύασαν ἀνδρῶν καὶ γυναικῶν. ἀξιολογώτατον δὲ τὸ Μαυσώλειον καλούμενον, ἐπὶ κρηπίδος ὑψηλῆς λευκολίθου πρὸς τῷ ποταμῷ χῶμα μέγα, ἄχρι κορυφῆς τοῖς ἀειθαλέσι τῶν δένδρων συνηρέφες· ἐπ' ἄκρῳ μὲν οὖν εἰκὼν ἔστι χαλκῇ τοῦ Σεβαστοῦ Καίσαρος, ὑπὸ δὲ τῷ χῶματι θῆκαί εἰσιν αὐτοῦ καὶ τῶν συγγενῶν καὶ οἰκείων, ὅπισθεν δὲ μέγα ἄλσος περιπάτους θαυμαστοὺς ἔχον· ἐν μέσῳ δὲ τῷ πεδίῳ ὁ τῆς καύστρας αὐτοῦ περίβολος καὶ οὗτος λίθου λευκοῦ, κύκλῳ μὲν περικείμενον ἔχων σιδηροῦν περίφραγμα, ἐντὸς δ' αἰγείοις κατάφυτος. Translation adapted from the Loeb translation of H. L. Jones.
- 72 Royal funerals: App., *BCiv* 1.106.500, *Schol. Da. Aen.* 9.272, with Coarelli 1997, 591–606. The *ustrinum* and cenotaph of Agrippa were evidently located at the edge of his *horti* south of the *euripus*: Coarelli 1997, 553–4 and Haselberger and Romano 2002, 141–2 (G. Petruccioli).
- 73 For the grove and park around Augustus' Mausoleum, see Hesberg and Panciera 1994, 35–6, and 33, who suggest that the custodian's house (*CIL* 6.8686) was perhaps located behind the tomb, in the grove to the north. A road running almost due east from the western tip of the Campus Martius to the Via Flaminia (possibly the Via Tecta or *recta* known from the middle of the first century BC) may not yet have existed in the time of Augustus: see Haselberger and Romano 2002, 263–4 (E. J. Kondratieff and G. Petruccioli). Even if it did, it is unlikely to have formed the southern limit of the unified zone mapped out by Augustus, since both the tomb of the Julii and the Pantheon, which would then lie outside the area, are integrated in the same system of axial alignments that link the Horologium and the Ara Pacis with the Mausoleum. Purcell 1987, 26–7 sees the zone as a *proastion* on the Greek model.
- 74 For the *Horti Luculliani*, see Broise and Jolivet 1998, 196. The same estate, lavishly embellished during the Claudian period by the owner, the twice-consular Valerius Asiaticus, was coveted by the emperor's wife Messalina in AD 47 and became the setting for her ignominious end less than a year later: see Tac., *Ann.* 11.1 with Beard 1998, 26–7 on the close relationship between *horti* (luxury estates) and the imperial power.
- 75 *AEpigr* 1993, 713 (Parma), *C(aius) Praeconius P(ubli) filius* / *Ventilius Magnus / eques Rom(a)nus hortulorum / haec iugera XXXV ita ut / reditus eorum in cenis ibe(!) / consumerentur sodalibus suis quique ab iis / supstituerentur(!) in perpetuom legavit*. Praeconius goes on to boast of draining a foul swamp to create arable land: *Haec quaecumque vides hospes vicinia fontis / [ante] hac foeda palus tardaue lympa fuit*. Of funerary gardens of known size, this is by far the largest, at more than three times the size of the next largest specimen, and is the only one owned by a Roman knight. Martial (1.116.1–2) imagines a combination of productive and unproductive landscape when he speaks of "the woodland and few acres of cultivated ground" that a bereaved father dedicated to his deceased daughter at his suburban estate on the outskirts of Rome: *Hoc nemus aeterno cinerum sacravit honori / Faenius et culti iugera pauca soli*; cf. 1.114, *horti*.
- 76 See, e.g., Champlin 1982; Jolivet 1997; Purcell 1987; Cima and La Rocca 1998. For developments in the zone in Late Antiquity, see Pergola et al. 2003.

- 77 Purcell 1987, 35–6. To refer to these earliest tomb gardens (of the first century BC) as *cepotaphia* is misleading, since the term is not found at Rome before the end of the first century, or indeed anywhere in any language before the early Augustan period (20s BC), when Strabo applied it to the tomb gardens of Necropolis in Alexandria.
- 78 Tomb revenue devoted to maintenance of the tomb: *CIL* 6.3823 = *ILS* 8532; 10239; 15526; 31644 = 1396; *AEpigr* 1961, 112, all from Rome; cf. *AEpigr* 1993, 418 (revenue from properties for the benefit of freedmen and women) (Ostia).
- 79 Tomb revenue devoted to celebrations at the tomb: e.g. *CIL* 6.10239 (Rome: *Parentalia*, days of violets and roses, birthday); *AEpigr* 1940, 4 (Ostia: *Parentalia*, days of violets and roses); D'Arms 2000, 136–9, no. B lines 17–27 (Misenum: *Parentalia*); *AEpigr* 1993, 713 (Parma, the knight Praeconius); *CIL* 5.2176 = *ILS* 8369 (Altinum); *CIL* 5.7454 = *ILS* 8342 (Vardagate: birthday, day of roses); *CIL* 12.1657 (Die); *CIL* 13.8706 (Leiden: July 17, birthday, *Parentalia*); *CIL* 13.2465 (Briord, Ain: *Parentalia*); *CIL* 13.5708 = *ILS* 8379 (*testamentum Lingonis*). Gardens were not the only tomb properties that financed funerary celebrations on the traditional dates: cf. *CIL* 6.10248 = *ILS* 8366 (Rome) (revenue from an apartment block). For roses and violets in Roman funerary celebrations, see Brenk 1990, and Fiscelli 2004, 19–65.
- 80 *Meritoria* and *stabulae*: *CIL* 6.15640; 36262 (Rome). *Tabernae*: *CIL* 6. 9404; 9681 (p. 3895); 13061; 17992; 29964; 31644 = 1396; 31829 = *ILS* 8092; 36262; *AEpigr* 1961, 112; *AEpigr* 1968, 165; *AEpigr* 1993, 418 (Rome); *CIL* 9.1938 (Beneventum); W. Dennison 1898, 383 no. 27; *CIL* 10.2015 (Puteoli); *CIL* 3.2082 (Salona). Note also, from Rome, the epitaph of an Imperial freedman of (probably) the Flavian period, who attached to his monument at Rome a building and shop, and possibly also a garden; and the epitaph of an Imperial freedman, Ti. Claudius Eudaemon, head of a unit of chamber servants, who attached to his tomb beside the Via Salaria, “an area enclosed by a wall, with its niches for ash urns and shop and guardian (or guardian’s lodging)”: Barbera et al. 2004, 198–201, no. 18 (S. Orlandi) and 180–1, no. 4 (R. Friggeri); from Gabii, the epitaph of three freedmen, who attached to a tomb of first-century date “a place enclosed by a wall with its buildings and shop and whatever belongs to the place”; Barbera et al. 2004, 430–1, no. 2 (G. Cecere). For the interpretation adopted here of the function of *tabernae* with tombs, see Gassner 1985; others suggest “eating houses” (Toynbee 1971, 97) or houses for the custodians (Marquardt 1886, 370), or reception rooms (Gregori 1987–8, 182).
- 81 For attested tomb costs in Italy during the first three centuries, see Duncan-Jones 1982, 166–71, with the discussion on 127–31. Although the range of recorded figures is wide, from a high of 500,000 HS to a low of 120 HS, all the evidence suggests that among soldiers and Romans of the working classes tomb costs represented a significant percentage of annual income – never, for example, among high-ranking legionaries less than one fifth of a year’s pay.
- 82 Carandini 1985, 69.
- 83 Rausa 1997, 97–8.
- 84 Toynbee 1971, 99–100 remarks on the striking regularity of the planting of the trees, each equidistant from and aligned with its neighbor.
- 85 Recorded tomb garden plot sizes seems to fall into three basic groups, each equally well attested: plots of less than 100 square meters, plots of between 200 and 2,500 square meters (1 *iugerum*), and plots of 5,000 or more square meters. If these figures are representative, then we may perhaps imagine a similar division of Roman tomb gardens into three basic groups, each characterized by a standard range of sizes.
- 86 *CIL* 6.9015 = 29847a (drawing); *ILS* 8120 (with *et* of the final line mistakenly omitted). The standard supplement of the word of which only S remains at the start of the last line, [*forma*]s, though it yields a desirable sense “[they] left the plans (*formas*) of the building for the caretaking (sc. of the tomb) and of the monument” and is said once to have been preserved, seems too long by several letters for the space suggested by the layout of the text. The general connection between the text and the plans, which were inscribed first (see line 2), is in any case clear.
- 87 A *cepotaphium* dedicated at Misenum in AD 148 included a dining room above the tomb, possibly a *hypogaeum*: see D'Arms 2000, 136, 138–39, no. B lines 23–24.
- 88 *Diaetae*: *CIL* 6.13823 = *ILS* 8532; 10876; *AEpigr* 1968, 165; *Tricliae*: *AEpigr* 1986, 25; *Tricliae* and wells: *CIL* 6.10237 = *ILS* 7870 = *CLE* 371; *CIL* 6.15593 = *ILS* 8063c. Cisterns: *CIL* 6.26942; 29961 (Rome); *CIL* 11.3895 = *ILS* 8347 (Capena); IG VII, 3453 (Chaeronea). Reservoirs: *AEpigr* 1986, 25 (Rome); *CIL* 13.5708 = *ILS* 8379 (*testamentum Lingonis*). Wells: *AEpigr* 1925, 92; *CIL* 6.29959 (Rome). Fountains: *CIL* 6.10237 = *ILS* 7870; *AEpigr* 1986, 25 (Rome); *AEpigr* 1993, 713 (Parma); cf. *CIL* 6.607, *AEpigr* 1982, 78 (tomb of the Haterii); at the Villa of the Mosaic Columns outside Pompeii, the fountain apse at the rear of the garden is decorated in the same way as the niche-tomb that faced the street.
- 89 [Verg.], *Copa* 7–8: *sunt topia et kalybae, cyathi, rosa, tibia, chordae, / et triclia umbrosis frigida harundinibus*.
- 90 The trope seems to have been especially fashionable during the second half of the first century, when *cepotaphia* first begin to be mentioned in the

- inscriptions around Rome. Both phenomena point to an increasing rhetorical emphasis on attention to the gravesite, in accordance with an early Julio-Claudian shift in focus of funerary behavior away from the civic center toward the suburban periphery (see Bodel 1999). Tomb gardens had by then been in use at Rome for more than a century.
- 91 For Trimalchio, see Petron. 71.6; Mart. 1.88 (Via Labicana), ... *sed faciles buxos et opacas palmitis umbras / quaeque virent lacrimis roscida prata meis* (Loeb translation by Shackleton Bailey); cf. 1.114 and 1.116 for the suburban estate (*horti*) of Faenius Telesphorus, with its small bit of countryside and water meadows (*breve rus udaeque prata*, 1.114.2), where he buried his daughter and consecrated to her tomb a woodland and a few acres of cultivated land (1.116.1–2). Stat. *Silv.* 5.1.235–8: *circumstant famuli consuetaque turba / obsequiis, tunc rite tori mensaeque parantur / assiduae. domus ista, domus! quis triste sepulcrum / dixerit?; 257: sartaque et Elysios animae praesternere flores.*
- 92 For Vergil's idyllic Arcadia, which came to define the trope, cf. *Ecl.* 4.58, 7.4–5, 10.26–33, with Alcock 1993, 226–8.
- 93 CIL 8.7854: [saep]e meis tumulis avis (! sc. *apis*) Attica parvula venit / et satiata thymo stillantia mella relinquit, / mi volucres hic dulce canent viridantibus antris, / hic viridat tumulis laurus prope Delia nostris / et auro similes pendunt in vitibus [uva]e. For the proverbial Attic bee, note Petron. 38.3.
- 94 Sanctity: e.g., CIL 6.22518 (*cum hortulo suo religiosio*); 29322 (*maceria sacrata*). Flowers and greenery: *AEpigr* 1957, 334 (Romula, Dacia), “amidst the vines and shrubbery and the lush grass, where deep shade from an overhanging branch supplies the greenery” (*inter pampinea virgulta et gramina laeta umbra super rami virides ubi densa ministrat*); and a late example (third or fourth century), from Savaria (Szombathely), Pannonia, *AEpigr* 1984, 722: “gather the roses for me, put out the white lilies which the green garden will grow for me” (*mihi carpe rosas, mihi lilia pone [ca]ndeda[s] q[uae] viridis dabit (h)ortulus*); cf. CIL 6.28877 = CLE 1036; 6.18385 = CLE 1184 (Rome); above n. 14, with further references. Tranquility: e.g., *AEpigr* 1925, 92: “this blessed soul rests secure in this place” (*haec anima benedicta hoc loco secunda requiescit*).
- 95 So Purcell 1987, 35 (emphasizing productivity) and Purcell 1996a, 123–4 (favoring amenity and comparing the layout of the plan from Urbino: see Figure 8.9).
- 96 CIL 11.3895 (Capena): *Huic monimento cedit rosarium cum viniola sola(rio?) suo, fine vineae, et e region(ibus) piscinae et canalus usque ad ariam, et area cum edificis et horreo et cisternae in solar(io) et e regione eius usque at [ad] arundinetum cum itin(eribus) qu(a)e sunt determinata; et collige iug(erum).* Buecheler's attempt (at CIL 11.3895) to reconstruct a plan of the garden based on its description is not wholly successful.
- 97 CIL 6.10237 = ILS 7870: T. T. Coccei Gaa et / *Patiens quaest(ores) III ((tertio)) / mensam quadratam in trichil(a), / abacum cum basi, horologium, / labrum cum fulmentis, marmor /¹⁵ putiale, crustas supra parietem / itineris medi cum tegulis, columel/lam sub horologio Tiburtina(m?) 7 [sic] / protectum ante porticum, truti/nam et pondera d(e) d(ecurionum) s(ententia) posuerunt; / et locum post maceriam ulteriorem /¹⁰ emendum ustrinasque de consaepto / ultimo in eum locum traiciendas et / iter ad eum locum ianuamque beneficio et liberalitate T. patroni facienda curauerunt; /¹⁵ idemque uitium pomorumq(ue) et florum / uiridiumque omnium generum / seminibus ea loca quae T. p(atronus) decuri/onibus suis adtribuerat ex pecu(nia) publica adornauerunt, /²⁰ Sisenna Tauro L Scribonio Libone co(n)s(ulibus).* For the poem, see also CLE 371: *haec loca, dum vident, libeat bene cuncta tueri / post obitumq(ue) suum tradant tum deinde futuris, / ne deserta vacant ignotis devia busta / sed tuta aeterno maneant, si dicere fas est.*
- 98 Avetta 1985, 126–7, no. 112 (R. Feri and G. L. Gregori), pl. 63,1; *AEpigr* 1986, 25: C. Iulius Aucti l(ibertus) / Epaphra Minor / curator primus / conlibert(is) conlibertab(usque) / familiae et quibus / Auctus n(oster) ollas tribuit / d(ono) d(edit) / trichilam cum pergula et / pavimento / mensam lapideam cum basi / abacum marmoreum / castellum cum fistulis et / epitonis aeneis tribus / lilium aeneum salientem / sedes tres scamna tria / mensas quadratas II / mensa(m) acerneam / gradus Tiburtinos in / ossuario / vites viridia. / M(arco) Lepido L(ucio) Arruntio co(n)s(ulibus).
- 99 D'Arms 2000, 136 (text), 140 (translation): ... *et ad cepotaphium meum quod annis die parentaliorum luctatorib(us) paribus decem in eo loco victoribus sing(ulis) HS VIII superatis sing(ulis) HS IIII n(ummos), oleum HS XVI n(ummos), vernis HS LX n(ummos), conductori harenae HS VIII n(ummos), sepulcro exornando viola HS XVI n(ummos), itemq(ue) rosa ornandis HS XVI n(ummos) et ad cepotafium meum quod annis die parentaliorum luctatorib(us) paribus decem in eo loco victoribus sing(ulis) HS VIII superatis sing(ulis) HS IIII n(ummos), oleum HS XVI n(ummos), vernis HS LX n(ummos), conducto/ri harenae HS VIII n(ummos), sepulcro exornando viola HS XVI item rosa HS XVI n(ummos), et super reliquias meas nardum p(ondo) libra HS XXIII [ef]fundi, et epulari volo magistratus qui tunc erunt ea die in triclin<i>o quod est super sepulchrum, et curatores Augustali/um qui tunc ernunt inpendique HS C n(ummos) et ea die sacrificio mihi faciundo HS LX n(ummos), et de reliq(uiis) HS CXXX n(ummos) in refectioe munitionis quotiens opus fuerit eiusdem cepotafi erogari – ita dari volo Augustalibus corporatis HS × m(ilia) n(ummorum).*

Abascantus' freedman status, though never made explicit, is apparent from the honors he accumulated (*curator Augustalium perpetuus, ornament(is) decurionalib(us)*) and the offices from which he was implicitly excluded: see D'Arms 2000, 130–1.

100 CIL 13.5708 = ILS 8379: ... *Colaturque id aedificum et ea pomaria et lacus arbitratu Philadelphi et Veri libertorum meorum, impensa(ue) praestetur ad reficiendum restituendum, si quid ex iis vitiatum corrum(ve) fuerit. Colatur a tribus topiariis et discentib(us) eorum ... Accipiantque singuli ex trib(us) tritici modios LX in ann(os) sing(ulos) et vestia(ri) nomine XX. Aquila autem nepos meus et heredes eius haec praestare debeto debento ... Omnes autem liberti mei et liberate quos et vivus et quos hoc testamento manumisi, stipem conferant quotannis singuli nummos sing(ulos), et Aquila nepos meus et h(eredes) eius praestet quotannis nummos [–] ex quibus edilicia quisque sibi paret et potui, quod profanetur infra ante cellam memoriae ... et maneant morenturque ibi donec eam consumant.* See Le Bohec 1991.

101 So, influentially, Purcell 1987, 35–6.

102 For further information about the tomb gardens referenced in the Appendix, please consult Volume 2 of this publication.

103 A complete inventory of *testimonia* by province, around the empire: Africa (Numidia) 3; Hispania 3 (Baetica 1, Lusitania 1, Tarraconensis 1); Gaul 8 (Narbonensis 3, Lugdunensis 1, Aquitania 2, Belgica 2); Britain 1; Pannonia 2; Illyricum (Dalmatia) 3; Dacia 1; Moesia 1; Macedonia 1; Achaia (Boeotia) 1; Asia 23 (Ionia 1, Lydia 7, Caria 1, Lycia 2, Pisidia 3, Phrygia 9); Galatia 2; Cappadocia 1; Egypt 3. For Rome and Italy, see below in the text.

104 For the Via Salaria, see Pliny, *NH* 31.89 and Festus, *Gloss.Lat.* 436–7 L. with Patterson 1995 and Steinby 1974–5, 86 (brickyards). Juv. 1.170–1 pairs the Via Flaminia with the Via Latina as places where suitable targets for his satire were buried.

105 One inscription found on the Caelian Hill probably originated in the zone around the Via Tusculana, between the Via Labicana and the Via Appia (CIL 6.36262); another is preserved in an estate beside the Via Latina (*AEpigr* 1973, 20).

106 Of seventy known catacombs and linked *hypogaea* in the outskirts of Rome, for example, nearly twenty are clustered in a zone around the third mile of the Via Appia and the Via Ardeatina, where the tufa bed is especially suitable for quarrying, whereas none has been found along the Via Collatina and the Via Praenestina, areas otherwise rich in burials: see the map in Nuzzo 2000, 2.

107 Cf. also CIL 14.3340 (Praeneste) and CIL 11.3895 (Capena).

CHAPTER 9

1 Polybius (31.25.4–8) ascribes the entry of Greek luxurious ways into Rome to the latter's wars against Perseus of Macedon in the early second century BC. If we may assume that the public colonnades in Greek Tarentum, where the townsfolk preferred to stroll discussing their war instead of fighting in it, were adorned with vegetation, the Romans may first have encountered some sort of public garden as early as 280–275 BC (Plut., *Pyrrh.* 16.2).

2 Columella, *Rust.* 1.1.10–14.

3 Diod. Sic. 20.8.3–4. All translations are my own.

4 Plut., *Vit. Sull.* 31.5–6. Appian (*BCiv.* 1.104) tells us that Sulla himself had near Cumae a country villa to which he retired from public life in 79 BC.

5 Strabo 5.3.12, 5.4.3, 5.4.8.

6 Cicero admits (*Att.* 1.13.6) to Atticus that he had proved that it was legitimate to borrow money from friends for the buying of property “in order to reach a certain position” in society.

7 Cass. Dio 69.19.2.

8 Xen., *Oec.* 4.13–17, 4.20–4; *Cyr.* 1.3.14; *Hell.* 4.1.15–16; *An.* 1.2.7, 1.4.10. See further Littlewood 1997, 19–20.

9 Strabo 12.3.30.

10 Suetonius (*Aug.* 72.3) claims that, although the emperor “considered enormous and expensive buildings wearisome,” he decorated his more “modest villas not so much with statues and pictures as with porticoes and groves and objects notable for their antiquity and rarity such as at Capreae the huge limbs of monstrous sea creatures and wild beasts ... and the arms of heroes,” an extraordinary cetaceous or palaeontological style of garden art which appears to have had no imitators.

11 Joseph., *AJ* 18.249. Philo specifically mentions (*Leg.* 29.185) Caligula's many expensive villas near Puteoli.

12 Cass. Dio 68.2.1–2; Herod. 2.4.6. The purpose was, of course, economic, to bring land into cultivation rather than to create gardens (Dio Chrysostomos suggests [7.33–9] in the early second century AD that it was not only emperors who were willing thus to give up land and, since he is speaking of Euboea, that the problem was not restricted to Italy).

13 Cass. Dio 75.8.4; Herod. 3.8.2.

14 Caesar's and Mark Antony's: Cass. Dio 44.35.3, 47.40.2; Pompey's: App., *BCiv.* 3.14; the Elder Agrippina's and L. Aelius Lamia's: Philo, *Leg.* 28.181, 44.351.

15 Strabo 13.1.19.

16 Strabo 5.3.8.

17 Philostr., *VS* 2.26 (615). It had been bought with the proceeds of his profession (the Younger Pliny,

- on the other hand, had villas at Como [*Ep.* 9.7.] called "Tragedy" and "Comedy" after their elevation in an amusing twist on the high boot and low slipper of actors of the two principal forms of drama).
- 18 Plutarch, either for rhetorical reasons or through confusion with another of Marius' villas, claims that it was at Baiae. He (*Plut., Vit. Mar.* 34.2) was probably depending upon a source from an earlier period of different standards, for Pliny the Elder (*HN* 18.7.32) and the Younger Seneca (*Ep.* 51.11) tell us that in design it had affinities with a military camp.
 - 19 *Plut., Vit. Luc.* 39.2–4. Pliny (*HN* 9.80.170) attributes this, and Velleius Paterculus (2.33.4) a very similar expression, to Pompey the Great rather than to Tubero. This is not the same estate as that of Marius, which Plutarch tells us (*Vit. Mar.* 34.2) passed into Lucullus' hands (see Badian 1973, 131).
 - 20 *Plut., Vit. Luc.* 39.2–4. Athenaeus (2.50f–51a) supports Pliny's claim (*HN* 15.30.102) that Lucullus was the first to import the cherry into Italy, but adds that he was the man who named it *cerasus* after the Pontic city (Athenaeus does mention also an earlier claim from ca. 300 BC for Diphilos of Siphnos).
 - 21 Dioscorides 4.81.11.
 - 22 This again has a Greek precedent: the inhabitants of Acragas in Sicily built Gelon a swimming bath (κολυμβήθρα) whose perimeter was over 1,400 yards and 30 feet deep. This became both a productive fishpond (ἰχθυοτροφεῖον) and, significantly, a place of pleasure for its numerous swans (*Diod. Sic.* 11.25.4).
 - 23 *Cass. Dio* 54.23.2–6 (also in *Sen., Ira* 3.40.2–5; *Clem.* 1.18.2).
 - 24 *Ael., NA* 8.4. Crassus' repartee was that whereas he had mourned an eel, Ahenobarbus had not mourned any of his three wives. Of Latin writers only Macrobius refers to it (*Sat.* 3.15.4–5), but it occurs frequently in Greek writers, thrice in Plutarch (*Mor.* 89A, 811A, 976A), once in Porphyry (*Abst.* 3.5), and twice as late as the twelfth century by John Tzetzes, who even uses it in verse (*Chil.* 8.142–51) and in a letter of consolation (*Ep.* 38.10–17). The exact identities of Crassus and Domitius Ahenobarbus are not certain.
 - 25 *Ael., NA* 12.30.
 - 26 *Suet., Calig.* 37.2. *Ath.* 5.206d–209e. Athenaeus quotes also (204d–206c) from Kallixeinos of Rhodes a description of a riverboat built in the late third century BC for Ptolemy IV Philopator. Although no garden is specifically mentioned here, its luxurious appurtenances, including walkways resembling peristyles and an alfresco dining room with an awning, make the presence of potted plants to simulate a garden not unlikely.
 - 27 The boat contained a fresh-water tank of about 18,000 gallons.
 - 28 Varro, *Rust.* 3.5.17.
 - 29 *Ath.* 196a–197c.
 - 30 Other floats and figures also in the procession had many vegetal elements (*Ath.* 197c–203b). For a Byzantine instance of the use of flowers for a procession see Niketas Choniates, *Hist.* 108.47–8.
 - 31 *Plut., Mor.* 1044d–e. The partridges were reared for their cackling. Chrysippos adds that farmland is embellished with vines on trees and with myrtles.
 - 32 *Od.* 5.63–73, 7.112–31.
 - 33 *Diod. Sic.* 3.68.5–69.4.
 - 34 Athenaeus claims (542a), on the authority of the historian Douris, that Gelon constructed a place so-named in a grove at Hipponion in Sicily as far back as the early fifth century BC.
 - 35 *Diod. Sic.* 3.68.5.
 - 36 *Diod. Sic.* 3.69.3.
 - 37 Strabo mentions (5.3.6) even whole and expensive buildings constructed within real caverns between Caieta and Tarracina.
 - 38 Varro, *Rust.* 3.5.14; Strabo 5.4.8.
 - 39 *Herod.* 1.12.2. Herodian claims (3.13.1) that Septimius Severus spent most of his time at an estate outside Rome for the healthy life there, but also as a means of keeping his sons away from the enticements of the city. The historian Cassius Dio also chose to live at his villa near Capua, which he found more conducive to study than Rome (77.2.1).
 - 40 Dio Chrys. 35.19–21.
 - 41 Lucian, *Ver. Hist.* 2.11–16.
 - 42 Philostr., *VA* 2.8.
 - 43 Philostr., *VS* 2.26 (614).
 - 44 One anonymous distich in the *Anthologia Palatina* (9.666) concerns a garden whose name was Eros.
 - 45 Philostr. *Lem., Eikones* 1.6.2.
 - 46 Alkiphron 4.13.
 - 47 From perhaps the sixth century comes a similar description of a garden by the erotic epistolographer Aristainetos (1.3).
 - 48 Longus 2.3–6, 4.2–4.
 - 49 Forehand 1976, 108.
 - 50 The only later romances that fail to supply an *ekphrasis* of a garden are those of Heliodoros and his imitator Theodore Prodromos and the Frankish-derived *Phlorios and Platziaphlore* and *Imberios and Margarona*. For a list of surviving *ekphraseis* of gardens in romances see Littlewood 1979, 110–14.
 - 51 Littlewood 1979, 98–107.
 - 52 Littlewood 1992, 148.
 - 53 The earliest evidence for such a fountain in the real world dates to the reign of Theophilos in the late first half of the ninth century, and antedates the first description in a romance. See Littlewood 1997, 31–3.

- 54 The history of Byzantine gardens, from the fourth to the fifteenth century, still remains to be written. Apart from short essays in encyclopaedias and suchlike works, the only two (and they are closely related) overall attempts have been Littlewood 1992, and Brubaker and Littlewood 1992. The sole book devoted to the subject (Littlewood et al. 2002), is a collection of papers from a colloquium rather than a true survey, but it does contain a substantial bibliography (231–5). Since the original writing and revision of this essay there has appeared, however, Littlewood 2013, at eighty-four pages by far the longest survey and containing fifty illustrations of which all but five are in full color. As indication of the amount of material still to be discovered about Byzantine gardens I can simply state that a recent reading of the major history of Niketas Choniates revealed thirteen references to gardens or rural estates not previously noticed by scholars working on Byzantine gardens. Of most importance for providing new information are two to the building of summer estates outside the capital (206.52–6, 215.3–8), one to the creation of a garden of flowers for a procession (108.47–8), one apparently to a continuation of the custom of building country palaces out over the sea (442.36–8, in the late twelfth century but otherwise not known after the pre-Iconoclastic period), and one to the existence of stone walls around gardens of the rural population (414.69). Moreover, further corroborating the Byzantine fascination with vegetation, there are about sixty instances of vegetal imagery, and over thirty-five metaphorical uses of agricultural or horticultural procedures in addition to the notorious ones of amputation of fingers being compared with pruning of vines and impaled captives with swaying scarecrows in cucumber beds (289.74–5, 84–9). On this see Littlewood 2007. For the same predilection in the great polymath Michael Psellos see Littlewood 2006, 16–20. Non-Greek sources for Byzantine gardens may also be used more: for instance, the fourteenth-century Arab traveller Ibn Battuta informs us that in the center of the audience chamber of the Blachernai Palace in Constantinople was a water channel flanked by trees, and that outside Hagia Sophia was an enclosure crossed by another water channel again flanked by trees and with jasmine and scented herbs at the foot of a wooden pergola covered in grape vines (Gibb 1962, 505, 509).
- 55 Even for eastern provinces Theodosios II issued a decree on May 5, 420 encouraging the fortification of private estates (*Cod. Just.* 8.10.10).
- 56 Symm., *Ep.* 1.1, 1.5, 1.8, 2.26, 3.50, 4.44, 5.93, 6.81, 7.15, 7.24, 7.26, 7.35, 8.23, 8.25.
- 57 Auson., *Mos.* 48–54.
- 58 *Anth. Lat.* 1.2. no. 646.
- 59 Claud., *Epith.* 49–96. Astonishingly, Neptune's abode is also bestrewed with flowers (154–8), its juxtaposition of violets and seaweed possibly suggesting villas built out over the sea.
- 60 *Vita S. Melaniae Iunioris Latina* 18.
- 61 Prudent., *Liber Cathemerinon* 5.113–24, 3.21–80.
- 62 Rut. Namat., 1.111–14, 377–80, 527–30.
- 63 Sid. Apoll., *Epist.* 2.2; *Carm.* 22.101–230.
- 64 Sid. Apoll., *Carm.* 24.53–74.
- 65 Ven. Fort., *Carm.* 1.18–20, 3.10.
- 66 Lux., *Carm.* 5, 6, 18, 34, 46. See Rosenblum 1961.
- 67 Procop., *Vand.* 2.6.9.
- 68 John Chrys., *Hom. in Matt.* 61.3, 63.4.
- 69 Lib., *Ep.* 419; Eun., *Vitae Sophist.* 464; Callinic. Rh., *Vita Hypatii* 4.4, 37.3.
- 70 Julian., *Or.* 1.13D, 2.101C–D.
- 71 Libanios, *Or.* 11.
- 72 Greg. Nyssa, *Ep.* 20. See further Rossiter 1989.
- 73 Julian., *Ep.* 4.426D–428B.
- 74 Nonnus, *Dion.* 3.140–68. Similarly rows of trees are shown straight, but in the ninth century Saint Theodore of Stoudion deliberately planted trees in a crescent on his estate at Boskytion (*Vita S. Theodori Studitae* 6–7, PG 99.122B–23B).
- 75 Niketas Choniates, in the thirteenth century, expressly compares (206.52–6) the summer villas built by Manuel I Komnenos with the Persian equivalents at Susa and Ecbatana. See in general on this subject Littlewood 1997, 18–21.
- 76 See Janin 1964, 138–53; Runciman 1980, 219–28.
- 77 Sozom., *Hist. Eccl.* 5.2.9.
- 78 *Anth. Pal.* 9.663. Cf. *Anth. Pal.* 9.664–5, 820.
- 79 On these gardens see Littlewood 1997, esp. 22; Maguire 2000.
- 80 See Littlewood 1997, 22, n. 62.
- 81 John of Ephesus, *Hist. Eccl.* 3.23.
- 82 Excavators found a bed of garden soil, unfortunately thrown away before analysis could be made, in the center of this very pavement.
- 83 Gen. 2.8, 2.22; Jer. 29.5 = 29.28. Cf. Psalm 128.2. Association of the Virgin with the enclosed garden of Canticles, the fact that the Byzantines' favorite homily of Gregory of Nazianzos (no. 44) extols the beauties of nature, and the assertion by Anastasios of Antioch in the sixth century (*In Annunt.*, PG 89.1380D–86A) that the Annunciation had occurred on the same day of the year as the first Spring of God's creation all encouraged the inclusion of vegetal and even gardenly elements in both literary texts and manuscript illuminations. For these the pagan Libanios' *ekphrasis* of Spring (8.479–82) remained influential. See further Maguire 1981, 42–52.
- 84 Maguire 1994, 191–7.
- 85 Xenophon claims (*Oec.* 4.20–4) that the Younger Cyrus told the visiting Spartan Lysander that

- he even did some of the planting himself. In his imaginary *Life of Apollonius of Tyana* Philostratus makes the Indian king Phraotes admit that “these hands are the farmers” of his fruit trees (2.26).
- 86 Aur. Vic., *Caes.* 39.6.
 87 Theophanes Continuatus, *Vita Basilii* 92.
 88 Michael Psellus, *Chronographia* 6.173–5. For further details see Littlewood 1997, 16–17, 28–9.
 89 On this glorious manuscript see now Brubaker 2002.
 90 Eus., *Hist. Eccl.* 2.17.5.
 91 Talbot 2002, 64–5.
 92 St. Basil, *Regulae fusius tractatae, interrogatio* 38 (PG 31.1017C–D).
 93 See especially Talbot 2002.
 94 St. Basil, *Ep.* 14. For further, but later, instances of holy men’s delight in a garden see Littlewood 1992, 128–9.
 95 Cassiod., *Var.* 12.15 and *Institutiones* 1.29: cf. *Var.* 8.32.
 96 Other borrowings concern Libanios’ description of Antioch itself (*Or.* 11). For details of borrowings see Downey 1957, 862.
 97 See Littlewood 1992, 143–4.
 98 Proc., *Aed.* 1.3.6. The whole description is repeated about 800 years later by Nikephoros Kallistos Xanthopoulos (*Eccl. Hist.* 15.25).
 99 For a detailed study see Maguire 1987.
 100 Paul the Silentiary, *Descr. S. Sophiae* 647–57.
 101 Significantly, this was probably made by Egyptian workmen trained in the Byzantine tradition (Creswell 1969, 1–2, 143, 229–45). The panel shows pruning of lower branches, but not the topiary work known in Rome from the time of Augustus. Whether the Byzantines practiced this art is not known: it seems not to be mentioned in literature and the fanciful trees in miniatures may just possibly be only an artistic convention (see Littlewood 1997, 29), although very similar shapes may be found today in various southeast Asian countries.
 102 Chorikios, *Laud. Marc.* 2.40–2, 50.
 103 *Vita S. Stephani Iunioris*, PG 100.1120C.
 104 Cassiod., *Var.* 1.6.
 105 *Narr. de S. Sophia* 28, 107–8.
 106 Procop., *Aed.* 1.1.59.
 107 Paul the Silentiary, *Descr. Ambonis S. Sophiae* 224–31.
 108 Littlewood 1992, 132.
 109 Tiny selections are given in Littlewood 1992, 130 and Littlewood 2002, 224–5. Their prevalence may be seen better in Littlewood 2006, 16–20 and Littlewood 2007, 224–33.
 110 Littlewood 1992, 129–30.
 111 The standard edition is that of Beckh 1895. It has recently been translated into English by Dalby 2011.
 112 The chapter (12.1) specifically on the sowing and planting seasons of Constantinople may possibly, however, have been a later addition (for other additions see Rodgers 2002, 169). Anatolios, directly or through the intermediaries, was also translated into Syriac, Pahlavi, Arabic, and Armenian (Rodgers 2002, 163).
 113 See schematic diagram, Rodgers 2002, 163.
 114 Despite its largely antiquarian nature, it almost certainly had a practical value for the Byzantines: some fifty manuscripts survive, and the late ninth-century Patriarch Photios expressly states (*Bibl.* 163) that the now lost treatise of Anatolios was useful “as I have found from direct experience.”
 115 For details see Rodgers 2002, 166–8.
 116 *Geoponika* 4.4; 10.9, 14–17, 19, 27, 47, 53, 60, 69, 76. In connexion with the last example it is worth observing Rodgers’s reference (2002, 170, n. 28) to the appearance in 1920 of a book on vegetables that recommends the straightening of crooked cucumbers by growing them in open cylindrical glasses.
 117 At *Geoponika* 10.83 occurs the most fanciful of all suggestions – a barren tree may be frightened into producing fruit by the threat of chopping it down (for the possibility of this being illustrated in a manuscript of Dioscorides, see Littlewood 1992, 134 and fig. 13).
 118 *Geoponika* 2.4–11.
 119 θριγκός can mean also “fence.”
 120 *Geoponika* 10.1.1–3.
 121 λάχανα can mean also “vegetables.”
 122 *Geoponika* 12.2.1–3. Appearing too late to be included is Littlewood 2013. It contains information relevant to the central section of this essay.
 123 Libanios 8.42.
 124 Nikephoros, *Epit. Hist.* 28.19–21.
 125 Theophanes Continuatus, *Vita Theophili* 8.

CHAPTER 10

- 1 Pliny, *HN* 19.49.
- 2 See Beard 1998, 23 on gardens as a cultural category, “good to think with.” See now also Pagán 2006, von Stackelberg 2009, and Jones 2014.
- 3 Purcell 1996, 122.
- 4 Purcell 1987a.
- 5 Purcell 1996a, 135.
- 6 See Bergmann 1991 on the shared *topia* of poetry, painting, and villas; Ackerman 1990, 286 on the “ideological goals” of villas.
- 7 Pliny, *HN* 1, index to Chapter 19; 19.177. The authors are for the most part otherwise unknown. For M. Valerius Messalla Potitus (cos. 29 BC) see Hanslik 1955, and Syme 1986, 228. For the Augustan Sabin(i)us Tiro, see Keyser and Irby-Massie 2008 s.v.). See Bergmann 2014, 273–5

- and Marzano 2014, 228 on the Augustan professionalization of horticultural expertise and elite competition.
- 8 See Cato, *Rust.* 8.2 (vegetables and flowers for garlands) and Varro, *Rust.* 1.16.3 (flowers) "it is profitable to have gardens on a large scale (*hortos late*) near a city."
 - 9 Cato, *Rust.* 1.1.7.
 - 10 Varro, *Rust.* 3.16.1–38.
 - 11 Varro, *Rust.* 3.17.2–3.
 - 12 Varro, *Rust.* 3.12.1–13.3.
 - 13 See Purcell 1995.
 - 14 Varro, *Rust.* 3.5.8–17.
 - 15 Columella, *Rust.* 10. Praef. 3. See Boldrer 1996, 15–22. The late fourth-century AD writer Palladius, author of a treatise, *The Work of Agriculture*, also drafted a poem "On Grafting," and his near-contemporary Marcellus Empiricus (*De Med. Praef.* 7) similarly ended his work with verse.
 - 16 Columella, *Rust.* 10.6 *numerosus hortus*, cf. 11.2.25 *suo loco dicam secretius*. See Gowers 2000, 124, Henderson 2002, 113.
 - 17 Columella, *Rust.* 11.2 trees, rosebeds, vineyards; 11.3 vegetable and herb gardens.
 - 18 Columella, *Rust.* Praef. 3: "Wherefore the cultivation of gardens, since their produce is now in greater demand, requires more careful instruction from us than our forefathers handed down" (*Quare cultus hortorum, quoniam fructus magis in usu est, diligentius nobis, quam tradiderunt maiores, praecipendus est*).
 - 19 Columella, *Rust.* 8.10–15, 8.16–17, 9.1.
 - 20 Purcell 1987a, 187. For the association of gardens and leisured "softness," see *Elegiae in Maecenam* 33–6, Manilius *Astr.* 5.254–68: "that man cultivates a garden shining with bright flowers ... his heart set on elegance, adornments, pleasing arts, life's allurements, and immediate pleasure."
 - 21 Kenney 1984, xxxv on the moral tinge of garden descriptions.
 - 22 Pliny, *HN* 19.59; Mart. 11.18.2: "I have a country property in my window" (*rus est mihi ... in fenestra*).
 - 23 Varro, *Rust.* 1.16.3, 1.23.4.
 - 24 I have deliberately excluded from this essay consideration of sacred groves (*lucus, nemus*), temple precincts, and public "parks" under the category of garden (cf. Purcell 2001, 550). On sacred groves and temple gardens see Chapter 5 in this volume.
 - 25 Pliny, *HN* 19.50; Wallace-Hadrill 1998, 5.
 - 26 Beagon 1992, 161, 79–91.
 - 27 Pliny, *HN* 19.51: *iam quidem hortorum nomine in ipsa urbe delicias agros villasque possident*.
 - 28 See Purcell 2001 on the definitions of *horti* / *hortus*.
 - 29 Beard 1998, 29.
 - 30 Pliny, *HN* 19.53–5; see Wallace-Hadrill 1990, 92.
 - 31 Pliny, *HN* 19.52: *Romae quidem per se hortus ager pauperis erat, ex horto plebei macellum*. Trans. Rackham 1971.
 - 32 Pliny, *HN* 19.57.
 - 33 See Garnsey 1980, 36–8.
 - 34 Purcell 2001, 554. Cf. the Greek tradition represented in Xenophon's *Oeconomicus* (4.13–25), where the famous walled gardens (*paradeisoi*) of the Persian kings represent the good government of the king by the regularity of their plantings, their offerings of nourishment as well as recreation, and the fact that the king has himself done the planting.
 - 35 See Kuttner 1999a, 10.
 - 36 Cic., *Sen.* 51.
 - 37 See Wallace-Hadrill 1998, 2.
 - 38 See Purcell 1995 and Jashemski 1987. See also Varro, *Rust.* 3.2.6–18 for a discussion of villas, luxury, and productivity.
 - 39 See Kellum 1994; Zanker 1988; and Castriota 1995. On religion in the actual Roman garden, see Jashemski 1979, 115–40.
 - 40 Purcell 1996a, 135–36. The term *luxuria* (and related forms) is used in Latin frequently of the immoderate growth of plants (OLD s.v. *luxuria* 1, *luxurio* 1, *luxuriosus* 1).
 - 41 Vitr., *De Arch.* 6.5.2: *silvae ambulationesque laxiores ad decorem maiestatis perfectae*. Trans. Purcell 1987a, 197.
 - 42 Tac., *Ann.* 15.42.1.
 - 43 Purcell 1996a, 128.
 - 44 Pliny, *HN* 9.170.
 - 45 See Columella, *Rust.* 3.8.4–5, "Italy has learned to produce the fruits of almost the entire world" (*paene totius orbis fruges*); Pliny, *HN* 12.6 (imported plane tree), 20, 111 (trees exhibited at triumphs), Kuttner 1999a, 11; Bergmann 2001, 154, von Stackleberg 2009, 74–90, Pollard 2009.
 - 46 Hor., *Carm.* 2.18.21; Sen., *Controv.* 2.1.13; Sen., *QNat.* 3.17.2.
 - 47 Sen., *Controv.* 5.5; Sen., *Ep.* 122.8.
 - 48 Hor., *Epist.* 1.10.22.
 - 49 Sen., *De Ira* 1.21.1.
 - 50 Pliny, *HN* 12.6; Hor., *Carm.* 2.15.4; Mart. 3.58.2–3.
 - 51 Sen., *Ep.* 86.6–7, 122.8; Mart. 9.75.
 - 52 Pliny, *HN* 12.13, 16.140.
 - 53 Cic., *Cael.* 36. Cicero himself was later interested in buying this estate from Clodia (*Att.* 12.38a.2, 13.29.2). On the erotic associations of gardens, see below.
 - 54 Messalina and the gardens of Valerius Asiaticus: Tac., *Ann.* 11.1.1; Agrippina and the gardens of Statilius Taurus: Tac., *Ann.* 12.59.1–2. See Beard 1998, and Boatwright 1998. The language used in both passages is markedly similar and striking; the women "gape after" these gardens (*hortis inhians*: Tac., *Ann.* 11.1.1, 12.59.1).
 - 55 Tac., *Ann.* 11.37–8.

- 56 Beard 1998, 27; cf. Boatwright 1998, 78–9. Other passages stress as well the dangers of owning desirable villas and gardens under the rule of powerful leaders, e.g. Plut., *Vit. Sull.* 31.10; Tac., *Hist.* 2.92; Pliny, *Pan.* 50.5–6 (where he contrasts Trajan's forbearance in appropriating estates with Domitian's rapacity).
- 57 Cic., *Phil.* 15, cf. Pompey in Plut., *Vit. Pomp.* 48.8; Caligula in Suet., *Calig.* 37.2–3; Nero in Tac., *Ann.* 13.47.2, 15.33.1, 39.1–2, 48–54 (15.53.1 *hortis clausus*: holed up in his gardens); and Suet., *Vit. Ner.* 22.2. Nero in turn accused the Roman knights of neglecting their public duties for their gardens and estates (16.27.2 *hortorum potius amoenitati inservient*: "they devote themselves rather to the pleasantness of their estates"); see Boatwright 1998, 78–81 and Edwards 1993, 137–72.
- 58 Pliny, *HN* 19.51: *magister otii*.
- 59 See Riikonen 1976; McKay 1998, 43–7; Grimal 1984, 10–3; Morford 1987.
- 60 Varro, *Rust.* 2; Intro. 2 on the increasing popularity of *Graecorum urbana ... gymnasia* (citified *gymnasia* of the Greeks) at villas. See Bergmann 2001 on these simulated landscapes of "virtual Greece."
- 61 Cic., *Tusc.* 2.9; Pliny, *HN* 31.6–8. See Linderski 1989, 106–8 for a list of the dramatic locations of Cicero's discourses. On Cicero's gardens and estates see Grimal 1984, 71–2, 251, 359–65; Schmidt 1972.
- 62 Varro, *Rust.* 3.5.10.
- 63 Linderski 1989, 105–6.
- 64 See Kuttner 1999a, 13–14 on the "Gallery of Culture" at the House of Fabius Rufus; and Dillon 2000.
- 65 Lucr., 2.29–33 is an important model; cf. Juv. 13.122–3, 14.319.
- 66 Sen., *Ep.* 4.10. See Usener 1963, 477. See, in general, D'Arms 1970, 55–8; Carroll-Spillecke 1994, 901–9; Stärk 1995, 116, n. 65. On the Villa of the Papyri see Conticello 1989 and Pandermalis 1983. See, however, Wojcik 1986 and Warden 1991, 260 for cautions about assuming an Epicurean sculptural program.
- 67 Morford 1987, 158–9; Grimal 1984, 418.
- 68 Sen., *Ep.* 21.10.
- 69 Cf. Seneca on Fabricius' cultivation of his own herbs and vegetables in *Prov.* 3.6.
- 70 Cic., *Nat. D.* 2.99.
- 71 Tac., *Ann.* 15.60–3.
- 72 Morford 1987, 157–8 and Boatwright 1998, 80–1. On Seneca's attitude to wealth see Griffin 1976, 294–314. As we have seen, in his writings Seneca had censured pleasure gardens as morally corrupt, e.g. *Ep.* 114, *Ben.* 4.13.1.
- 73 Tac., *Ann.* 14.52.2: *hortorum quoque amoenitate et villarum magnificentia*.
- 74 Tac., *Ann.* 14.54.3: *quod tempus hortorum aut villarum curae seponitur in animum revocabo*.
- 75 Juv., 3.226–39.
- 76 Pliny, *HN* 19.49. See Kenney 1984, xxxvi.
- 77 *Od.* 7.84–132. The island of the Phaeacians functioned as a paradigm for utopian settings, see Heubeck et al. 1988, 7.81–132, and Kenney 1984, xxxiv; cf. Stat., *Silv.* 1.3.81–2, where the productivity of Vopiscus' orchards is compared to the mythical gardens of Alcinoos.
- 78 On the Greek tradition see Motte 1973.
- 79 See the important work on literary and poetical landscapes by Horsfall 1985; Thomas 1982; Leach 1988 and Leach 1993; Kuttner 1999a, 8.
- 80 Zeitlin 1990, 446. See now Prioux 2014.
- 81 *Met.* 3.158–9: *simulavit artem/ ingenio natura suo*.
- 82 Adams 1982, 84; cf. e.g. *Priapea* 5.3–4, 15, 38, 71.
- 83 Catull., 62.39–48: *ut flos in saeptis secretus ... hortis*. Segal 1969, 68–9 discusses the garden as a symbol of both virginity and the sensual world.
- 84 Segal 1969, 33–8.
- 85 Cf. e.g. Columella, *Rust.* 10.32–4: "the god Priapus with his formidable member, who always [is] placed in the middle of your garden." Ov., *Fast.* 1.400; Verg., *G.* 4.110–11, *Ecl.* 7.34; Tib. 1.1.17–18; Hor., *Sat.* 1.8.5.
- 86 For Pans and nymphs, see, e.g., Stat., *Silv.* 1.5, 2.2, 2.3; Pliny, *HN* 19.50; and Grimal 1984, 326–30, 392. For Venus, see Varro, *Rust.* 1.1.6, *LL* 6.16; Jashemski 1979, 124–31; Grimal 1984, 49–51.
- 87 See Lucr., 5.739–40, Varro, *Rust.* 1.1.6.
- 88 Ov., *Fast.* 5.260–72.
- 89 Ov., *Fast.* 4.946, cf. Sen., *Ep.* 97.8. On Flora and the Floralia, see Scullard 1981, 110–11; Wiseman 1999; Fantham 1992.
- 90 Ov., *Fast.* 5.331–48.
- 91 Newlands 1995, 104–10, 122–3.
- 92 Ov., *Fast.* 5.209–11: *est mihi fecundus dotalibus hortus in agris ... hunc meus implevit generoso flore maritus*.
- 93 Hyacinth: Ov., *Met.* 10.162–219; narcissus: 3.339–510; crocus: 4.283; anemone: 10.708–39.
- 94 Newlands 1995, 110.
- 95 Ov., *Fast.* 5.377–8: "That Naso's poem may bloom forever, strew, I beg you, goddess, your gifts upon my breast."
- 96 See, e.g., Ov., *Ars Am.* 1.757f., 2.320f., 513, 649–52 (grafting), 3.576 (*poma*). Adams 1982, 24f., 82–5, 154f. See Thomas 1988, on *G.* 2.325–35 on sexual metaphors as "part of the agricultural tradition." For the popularity in Roman elegy of suggesting the gardens of Pompey's Portico as a good place for picking up dates, see Kuttner 1999.
- 97 On Vertumnus see Radke 1965, 317–20. For Pomona see Radke 1965, 257–8; Latte 1960, 37, 73–4. Pomona seems to have had her own sanctuary (*Fest.* 250M, 296L), which most agree was probably a sacred grove.
- 98 See Myers 1994.

- 99 Petron., *Sat.* 126.12. For plane tree groves and Venus in the setting of Pompey's garden portico in Rome, see Gleason 1994 and Kuttner 1999.
- 100 Petron., *Sat.* 127.9, cf. *Il.* 14.346–51. Courtney 2001, 193 remarks that while the flowers in Homer are wild, garden plants appropriately are named in the *Satyrical*.
- 101 Petron., *Sat.* 131.8.
- 102 Petron., *Sat.* 131.8.6: *dignus amore locus*.
- 103 See Zeitlin 1990 on Longus' *Daphnis and Chloe* 2.3–6, the private enclosed garden of the old herdsman-gardener-*praeceptor amoris* Philetas in which Eros sports, and 4.2–4, the grand *paradeisos*, garden park, of Dionysophanes. Achilles Tatius' novel *Leucippe and Clitophon* includes a sensuously described garden at 1.1.15. Littlewood 1979 discusses the prominence of garden ekphrases in Byzantine romances and their role as scenes for erotic action and as symbols of the characters of the heroines.
- 104 Zeitlin 1990, 421; cf. Fitzgerald 1996, 411: the gardener's activities "mimic and materialize the process of writing itself." On ekphrasis see Fowler 1991.
- 105 Rhetoric: Cic., *Orat.* 19.65; Quint. 2.5.22, 12.10.13; Sen., *Ep.* 114.16; poetry: Columella, *Rust.* 9.2.1 on Vergil's *poeticis floribus*. See Roberts 1989, 48–9; TLL 2.7.936–7. See also Connors 1997, Prioux 2013.
- 106 e.g. Lucr. 1.119, 1.928; Hor., *Carm.* 1.38.2, 1.26.7; Prop. 3.1.19–20. See Gow and Page 1965, vol. 2, 593–7 on flowers and poetry (other examples include Sappho fr. 55, Ar., *Frogs* 1299, Pl., *Ion* 534A); Newlands 1995, 219; and Davis 1991, 118–20.
- 107 Gow and Page 1965, vol. 2, 593–606 (= A.P. 4.1).
- 108 Verg., *G.* 4.116–24. On the possibility that Vergil's garden is indebted to the Hellenistic poet Nicander's treatment of gardens in his *Georgika* (fr. 74 Gow and Scholfield consists of a 72-line hexameter list of instructions for planting flowers suitable for garlands), see Harrison 2004.
- 109 Columella, *Rust.* 10.5, cf. *G.* 4.148.
- 110 Verg., *G.* 4.132.
- 111 These two types of trees (editors are divided as to whether we should read *pinus* [pine] or *tinus* [*laurustinus*, *viburnum*] in line 141) were said to provide the gum (*propolis*) used by bees in constructing the hive (cf. Columella, *Rust.* 9.4.2, 5.6).
- 112 Verg., *G.* 4.139–43, cf. 109–15 on the beekeeper's need of a flower garden.
- 113 Verg., *G.* 4.127–9: *nec fertilis illa iuvencis / nec pecori opportuna seges nec commoda Baccho*; see Thomas 1988, *ad loc.*
- 114 Kenney 1984, lvi; cf. Thomas 1992, 201–2 on the gardener's unique success in the poem, in contrast to much of the agricultural world of labor.
- 115 Servius on Verg., *G.* 4.127. See Thomas 1992, 35–6 and Kronenberg 2009, 35–6 for summaries.
- 116 See Henderson 1997; Thibodeau 2001; Kenney 1984, 68–70; Sen., *Ep.* 12.86.
- 117 Ross 1987, 201–6; Clay 1981.
- 118 Verg., *G.* 4.133. See Kenney 1984, xxxvii, cf. Perkell 1981, 171 on the non-commercial nature of the garden.
- 119 See Perkell 1981, 172, Grimal 1984, 388–92, and Ross 1987, 201–2 on the garden's unrealistic nature. On the continual negotiation between the natural and supernatural in the ideal landscape tradition, from Homer's Phaeacia onwards, see Curtius 1991.
- 120 Verg., *G.* 4.146. On the associations of the plane tree, see Thomas 1992, 41–2; Hardie 1997; Nisbet and Hubbard 1978, on Hor., *Carm.* 2.11.13; Pöschl 1968, 396. Plane trees were also a popular feature of real Roman gardens, see Pliny, *Ep.* 5.6.20; Meiggs 1982, 276–7; Jashemski 1979, 51–4; Jashemski 1993, 348–56 (for the spectacular garden paintings depicting plane trees from the House of the Wedding of Alexander). It can be traced most famously as a locus of philosophical discourse back to Plato's *Phaedrus* (229a–b, 230b), a tradition reflected in Cicero's *De Or.* (1.7.28).
- 121 Verg., *G.* 4.144–7. Ross 1987, 201–6, Thomas 1988, *ad loc.* Thibodeau 2001, 180–1 argues that enough time has passed to eliminate the miraculousness of the old man's feat.
- 122 e.g. La Penna 1977, 57 (Epicurean), Klingner 1967, 310, n. 1.
- 123 See Richter 1957 on Verg., *G.* 4.125–48.
- 124 Thomas 1982, 58: a "private poetic vision ... not the real world"; Kenney 1984, xxxvi.
- 125 Leigh 1994; Harrison 2004; Ross 1987, 201–6; Klingner 1967, 309. Thomas 1992 finds in Vergil's garden and that of the old gardener Philetas in Longus' *Daphnis and Chloe* a common model in the poetry of the Hellenistic poet Philotas; cf. Zeitlin 1990, 448, n. 89, and Hunter 2007, 76–83. Zeitlin argues that the two garden ekphrases in Longus (*Daphnis and Chloe* 2.3–7 and 4.2–4) function as allegories or representations of the text itself.
- 126 Thomas 1992, 181–8; see on the vocabulary of poetic memory, Conte 1996, 57–69.
- 127 Verg., *G.* 4.144; see Clay 1981, 65, n. 26.
- 128 On Claudian, *Carm. min.* 20, see Thibodeau 2001, 193–5.
- 129 Cf. Hor., *Carm.* 1.1.19–22, 2.3 (with Nisbet and Hubbard 1978, 52–3), 2.11; Hor., *Epod.* 2.23–8. See Leach 1993; Thomas 1982, 8–34; Troxler-Keller 1964. On the *locus amoenus*, see Schönbeck 1962 and Curtius 1991, 183–202.
- 130 Grimal 1984 often includes too inclusively both the *locus amoenus* and the pastoral landscape

- under the categories of gardens in literature (on Horace see 394–400).
- 131 e.g., Hor., *Epist.* 1.7, 1.10, 1.16, *Carm.* 1.17; see Thomas 1982, 8–34 and Schmidt 1997.
- 132 Hor., *Sat.* 2.6.1–2: *modus agri non ita magnus / hortus ubi et tecti vicinus iugis aquae fons.*
- 133 Hor., *Epist.* 1.16.15: *hae latebrae dulces, etiam, si credis, amoenae*, cf. e.g. Hor., *Sat.* 2.6.60–76; Hor., *Epist.* 1.7.44–5, 1.10.
- 134 e.g., Hor., *Carm.* 1.7, 1.38.2, 1.26.7. See Davis 1991, 118–23.
- 135 The poem appears in the *Appendix Vergiliana*, but is generally agreed not to be by Vergil. See Kenney 1984, xxi–xxvii on date and authorship. It exhibits the clear influence of Vergil and Ovid.
- 136 *Moretum* 62: *exiguus spatio, variis sed fertilis herbis.*
- 137 *Moretum* 60: *hortus erat ...*
- 138 *Moretum* 73–6, cf. G. 4.121–2. See Ross 1975, 259–60.
- 139 *Moretum* 77: *quis enim contractior illo?*
- 140 *Moretum* 77–84.
- 141 *Moretum* 63: *nil illi deerat quod pauperis exigit usus.* Kenney 1984, il–l.
- 142 Kenney 1984, 27–34, 40.
- 143 Ross 1975, sees the poem as a parody of the Alexandrian domestication of heroic epic (cf., e.g., Ovid’s Baucis and Philemon episode at *Met.* 8.618–724).
- 144 Kenney 1984, 52–7; Fitzgerald 1996.
- 145 *Moretum* 68–9: *varias disponere plantas / norat*, cf. 62. On gardens and *varietas* (variety), see Cato, *Rust.* 8.2; Columella, *Rust.* 10.6, 96; Pliny, *Ep.* 5.6.13.
- 146 See *Moretum* 67–8.
- 147 On tavern gardens see Jashemski 1963–4, and Westendorp Boerma 1976. The *Culex*, another poem of the Appendix, ends with a description of the flower garden, which will grow at the gnat’s shrine (390–414), and at *Ciris* 95–8 flowers surround a temple of the Muses. For the text of the *Copa* I follow Kenney 1967.
- 148 On her name as an ethnic “Syrian,” see Courtney 1972, 174. Goodyear 1977, 121 suggests the name could also function as a cognomen; cf. *Copa* 1: *caput Graeca redimita mitella* (“her head was bound with a Greek headband”).
- 149 *Copa* 2–3, cf. 33. See Rosivach 1996, 608 for references to tavern/brothels, cf. Henderson 2002a, 277.
- 150 *Copa* 34.
- 151 *Copa* 7; *topia* here could also signify garden paintings, see Westendorp Boerma 1976, 657–8.
- 152 *Copa* 8: *triclina umbrosis frigida harundinibus.*
- 153 *Copa* 12–16, 52, 18–22, 31.
- 154 e.g. *Copa* 9: *Maenalia ... sub antro.*
- 155 *Copa* 23–4: *vasto ... inguine.*
- 156 *Copa* 7: *calybae*, 25 *calybita*. See Westendorp Boerma 1976, 653–7.
- 157 Rosivach 1996, 609 and Franzoi 1988, 36–7, both quoting Frank’s term (Frank 1920, 235) of “ornate realism.”
- 158 Rosivach 1996, 613: “The poem thus allows its sophisticated reader to go slumming, as it were.”
- 159 See Libanius’ “Praise of the Countryside,” in Förster 1963, vol. 8; Achilles Tatius 1.15; Apul., *Met.* 2.4. For the influence of rhetoric on Statius see Hardie 1983, 74–118, cf. Cairns 1975.
- 160 Stat., *Silv.* 1.3.108; Pliny, *Ep.* 1.22.11: *studiosum otium* (studious leisure). See Myers 2005.
- 161 Stat., *Silv.* 1.2, 3, 5, 2.2, 2.3, and 3.1.
- 162 Bodel 1997, 16 notes that “What was new was the notion that the domestic environment in which a gentleman cultivated his leisure was itself worthy of poetic commemoration.” The following discussion essentially summarizes my longer arguments in Myers 2000. All quotations of the *Silvae* are from Courtney 1990.
- 163 See Cancik 1978, 123–4.
- 164 For discussion about the site of this villa, see Mingazzini and Pfister 1946, 54–70 and Bergmann 1991.
- 165 Stat., *Silv.* 2.3.63: *ingenti ... sub aevo.*
- 166 The term is Bergmann’s in Bergmann 2001, cf. Bergmann 2002; Kuttner 1999, 10–11; Farrar 1998, 104–5. See also Purcell 1996, 203 on the awareness of villa owners of historical, religious, and mythical associations of their topography.
- 167 Stat., *Silv.* 2.2.29: *dominique imitantia mores* (reflecting the character of its owner).
- 168 Szelest 1966, 191–3; Van Dam 1984, 190; Newlands 1988, 96–7; Newlands 2002; Wallace-Hadrill 1998a, as well as Purcell 1987, would stress the message that an estate conveyed as a symbol of the owner’s power his resources and ability to control and dominate the environment and local population.
- 169 Stat., *Silv.* 1.3.64, 2.2.98.
- 170 Stat., *Silv.* 1.3.59–63.
- 171 Stat., *Silv.* 2.2.52–62.
- 172 Stat., *Silv.* 2.3. See Van Dam 1984, *ad loc.* The plane tree was condemned for its sterility, serving only for ornament and shade.
- 173 Stat., *Silv.* 1.3.44, 3.1.100–1.
- 174 Stat., *Silv.* 2.2.30–3.
- 175 Stat., *Silv.* 2.2.52–8, cf. 3.1.117–53.
- 176 Stat., *Silv.* 2.2.109.
- 177 e.g., Stat., *Silv.* 1.3.45–6: “the river smiles,” 2.2.58: “the land rejoices,” cf. 1.3.26, 56, 2.2.24. See Van Dam 1984, 227–8; and Newlands 1991, 448–9; cf. Pavlovskis 1973 on the shift in attitude toward wealth, luxury, and technological progress in the late first century AD.
- 178 See Myers 2000 and Van Dam 1984, 190, 369–70; cf. Newmyer 1984.

- 179 See Newlands 2002, 3–4, 22, 118. For *luxuriosus* as “extravagant style” see OLD s.v. 1b; TLL 7.2.1933.38–49.
- 180 Newlands 2002, 1.3.15–16: *forma beatis / ante manus artemque locis*.
- 181 Newlands 2002, 2.2.52–3.
- 182 Newlands 2002, 1.3.90–4, 2.2.150–4, 2.3.70–1.
- 183 Newlands 2002, 2.2.113, 1.3.93–4.
- 184 Newlands 2002, 1.3.94–5.
- 185 *placidus*: Newlands 2002, 1.3.22; 2.2.9, 13, 140; 2.3.15, 64; *quies*: 1.3.29, 41, 91; 2.2.26, 140, etc.
- 186 On the changing nature of the definition of *otium* under the Empire, see Woodman 1983, vol. 2, 242; cf. Syme 1958, vol. 1, 19–20, 27. See Nauta 2002, 308–23 on *quies* in Statius.
- 187 *Elegiae in Maecenatem* 1.31–6. See Wallace-Hadrill 1998. Seneca had tried unsuccessfully to use Maecenas as a precedent for his own withdrawal (Tac., *Ann.* 14.53.3).
- 188 See Volume 2 of this publication for a discussion and detailed description of the gardens and sites.
- 189 See especially Pliny, *Ep.* 5.6.4–13.
- 190 Pliny, *Ep.* 2.17.25: *haec utilitas haec amoenitas*.
- 191 Bek 1980, 179. Cicero also frequently stresses the *amoenitas* of his villas, e.g. *Att.* 4.8.1, 12.19.1, 14.13.1.
- 192 Duncan-Jones 1965 argues that they would have contributed a substantial part of his yearly income (HS 1 million or more [cf. Sherwin-White 1966, 2.4.3]). In other letters we learn details about some of Pliny’s business affairs concerning the produce of his estates (e.g., *Ep.* 8.2: grape harvest, *Ep.* 7.30: tenant farming).
- 193 Pliny, *Ep.* 2.17.13.
- 194 Pliny, *Ep.* 4.6.
- 195 Pliny, *Ep.* 2.17.15.
- 196 Purcell 1995, 160 points out that at Settefinestre the two façades of the excavated villa look toward farmyard and gardens.
- 197 Pliny, *Ep.* 5.6.13: *Neque enim terras tibi, sed formam aliquam ad eximiam pulchritudinem pictam videberis cernere*. Trans. Radice 1963.
- 198 See Purcell 1995, 159.
- 199 Pliny, *Ep.* 5.6.41.
- 200 Cf. Bergmann’s discussion (Bergmann 2002, 99) on the villa at Oplontis’ “green architecture.”
- 201 Stat., *Silv.* 2.2.73–4; Pliny, *Ep.* 2.17.3: *varia hinc atque inde facies*. Bergmann 1991, 66; Bergmann 1995, 412; and Drerup 1959, 147–74. Cf. Horace’s criticism of such proprietary villa vistas at *Epist.* 1.10.22–3: *inter varias nutritur silva columnas, / laudaturque domus longos quae prospicit agros* (“between your mottled columns a forest is being nursed and the home is praised which looks out over distant fields”).
- 202 Pliny, *Ep.* 2.17.8.
- 203 Pliny, *Ep.* 5.6.22.
- 204 See De Caro 1987.
- 205 Pliny, *HN* 12.13.
- 206 See Pliny, *Ep.* 2.17.3.
- 207 See Volume 2 of this publication for detailed descriptions of the layout of the gardens.
- 208 Hoffer 1999, 38. Cf. Varro’s complaints about the proliferation of Greek features and names at villas in his time (*Rust.* 2, Intro. 2: *nec se putant se habere villam, si non multis vocabulis retinniat Graecis*, “they do not think they have a real villa unless it rings with Greek names”).
- 209 e.g., Pliny, *Ep.* 2.17.5, 5.6.23, 30.
- 210 Pliny, *Ep.* 2.17.13–15. See Förtsch 1993, 74–5, *passim*, and Bergmann 1995, 413 on the multiple vantage points of this varied landscape.
- 211 Pliny, *Ep.* 5.6.18: *pratum inde non minus natura quam superiora illa arte visendum*. See Lefèvre 1977, 536–8 on Pliny’s aesthetic view of the natural.
- 212 Purcell 1996a, 144; see Vitruvius, *De Arch.* 2.1.2.
- 213 Pliny, *Ep.* 5.6.32. Illustrations of reconstructions of the estate are to be found in Förtsch 1993, pl. 43, and Farrar 1998, 56 reconstructs the plantings in the hippodrome.
- 214 Pliny, *Ep.* 5.6.35: *in opere urbanissimo subita velut inlati rursus imitatio*.
- 215 Pliny, *Ep.* 5.6.37–40. On the importance and significance of the control and use of water in the Roman villa garden landscape, see Purcell 1996, 197–9, Ricotti 1987.
- 216 Pliny, *Ep.* 5.6.36–7.
- 217 Pliny, *Ep.* 5.6.45–6: *placida omnia et quiescentia* (“the whole is peaceful and quiet”).
- 218 Pliny, *Ep.* 4.6.2: *ipsum me studiis excolo*, cf. 1.22.11.
- 219 See Pliny, *Ep.* 9.36, 37.
- 220 Pliny, *Ep.* 2.17.7, with Whitton 2013, *ad loc.* Pliny was hardly philosophically inclined; the brief mention of this culturally pretentious feature here corresponds to his lukewarm letter recommending a Stoic philosopher in *Ep.* 1.10.
- 221 e.g., Pliny, *Ep.* 1.13, 3.15, 4.3, 5.17, 8.12.
- 222 Quint., *Inst.* 4.3.12 lists “praise of men and places” and “the description of regions” (*laus hominum locorumque ... descriptio regionum*) under the category of oratorical excurses.
- 223 Pliny, *Ep.* 5.6.43.
- 224 Bergmann 1995, 420. There has been a long scholarly debate about the possible fictionality of Pliny’s two villas. That they did exist seems clear, but Pliny’s primary goal was not to describe them realistically.
- 225 See McEwen 1995; Leach 1990.
- 226 Pliny, *Ep.* 9.7.3.
- 227 e.g., Mart., *Ep.* 4.64, 8.68, 10.30.
- 228 e.g., Mart., *Ep.* 3.58, 9.46, 12.50, 57.
- 229 Mart., *Ep.* 3.58.45: *possides famem mundam*, cf. 12.50.
- 230 See Stärk 1995, 144–5; Purcell 1995, 153.
- 231 Mart., *Ep.* 10.58.

- 232 Saller 1983, 251. For the *Nomentanum*, see Mart. *Ep.* 13.15, 42, 119; 1.105; 2.38; 6.27, 43; 7.31, 49, 93; 8.61; 9.18, 54, 60; 10.44, 48, 58, 92, 94; 12.57.
- 233 Mart., *Ep.* 5.78 and 10.48.
- 234 Mart., *Ep.* 11.18.
- 235 *urbs* and *rus*, e.g., Mart., *Ep.* 1.55.
- 236 Stat., *Silv.* 4.5.1: *rus parvum*.
- 237 Mart., *Ep.* 6.43.3.
- 238 Mart., *Ep.* 1.107.3–4, cf. 8.56, 11.3.
- 239 Mart., *Ep.* 12.31.
- 240 Sen., *Thyestes* 651–6. I thank Cynthia Damon for drawing my attention to this passage.
- 241 Tarrant 1985, 651–6; hence, I have included this grove in my discussion.
- 242 Tarrant 1985, 47. On the use of landscape and the theme of cosmic and political dissolution in Imperial literature see Garrison 1992.

CHAPTER 11

This chapter began many years ago, when Wilhelmina Jashemski requested an introduction to garden paintings that would summarize the evidence and incorporate recent discoveries. The current version was completed in 2005 and it has not been possible to incorporate all the publications on garden paintings since then. Versions of certain sections appeared in Bergmann 2008, 2014a, 2014b, and 2016.

- 1 Jashemski 1979, 63–73, 83–5; Jashemski 1993, 313–92 and Appendix II, 313–404.
- 2 On garden paintings in general: Michel 1980; Ling 1991, 149–53; a list of examples in Moormann 1995, 396–7; De Carolis 1992, 29–33; Ciarallo 2001; Leach 2004, 123–32; M. Mastroroberto 1997. Exceptions to the treatment of frescoes separately from context is Zanker 1998; *PPM* and the detailed studies of individual houses in the series Ehrhardt 1988; Michel 1990; Seiler 1992; Fröhlich 1996; on the recontextualization of frescoes in garden spaces, see now Eristov 2014.
- 3 Barbet 2008.
- 4 Now in the Antiquarium di Boscoreale, Inv. 21630, 12 cm high × 35 cm wide; Conticello, 1991; on the fragments from the Villa Imperiale: Jashemski 1993, 401–3, nos. 195–7.
- 5 On the *horti conclusi*: Jashemski 1993, 380–404; Warscher 1942; De Carolis 1992, 105–6, catalog entries nos. 3–5; Ward-Perkins and Claridge 1978, 79–80 (from Herculaneum), 91; Landgren 2004, 121; Moormann 1995, 396–7; Bergmann 2014a.
- 6 Found in 1760; Calvani Marini 1975, 156–7, fig. 47.
- 7 A few garden representations that do include humans are atypical. The Augustan Tomb of Patro depicts the funeral cortege of the deceased. In the Late Antique vestibule in the House of the Nymphaeum in Ostia, one of two panels with floral backgrounds shows a woman with a small figure (a child?), and the other panel, two men, one of whom holds a stick. Similar figures populate landscape *pinakes*.
- 8 The same wooden trellises appear on later walls like fragmentary quotes from a larger garden scenario, as in the side panels of Triclinium N in the House of the Vettii where they introduce an airy ambience into a rich figural decor. Jashemski counted nineteen gardens with remains of pergolas with masonry columns or wooden posts. See Nonaka 2012, 20–37.
- 9 On architectural features, pools, and fountains in gardens see Farrar 2000, 27–96; Förtsch 1993.
- 10 Brown 1980, 67–9; note another garden in Cosa with remains of a wall painting depicting an illusionistic wicker fence: Fentress 2003a, 178–84; Bruno and Scott 1993, 117–18, 146–8 on the date and 148–51 on the garden.
- 11 On the garden of the House of the Chaste Lovers, with early bibliography: Varone 1993.
- 12 Gleason 2010.
- 13 Cunliffe 1998.
- 14 On average, the landscapes measure about 30 × 12 ins. On the villa paintings, see Bergmann 1991; Rostovtzeff 1904; Thagaard Loft 2003, disagrees with Rostovtzeff that these paintings represent actual villas.
- 15 Jashemski 1979, 78; Jashemski 1993, 396–7; Peters 1993.
- 16 Naples Museum 9406. At Oplontis, the types of trees and bushes and the order of plantings were determined by plaster casts of roots and soil analyses: Jashemski 1987, 31–75; Jashemski 1993, 293–301.
- 17 Cic. *Sest.* 93.
- 18 Cic. *Att.* 1.16.
- 19 Schmidt 1972; Bergmann 1991; Förtsch 1993.
- 20 Lauter-Bufe 1975. A few marble plans do reproduce the specific plantings of funerary plots, see Chapter 8 in this volume.
- 21 Earlier painted gardens decorated tombs in: Capua (lost), a display of bushes (fourth or third century BC); Cerveteri, a forest of palm trees (third century BC); Tarentum (lost), a vault painted with grapevines. See Cristofani and Gregori 1987, 2, figs. 9–11; Weege 1909, no. 25. More evidence survives in the Hellenistic East: a house in Kerch (Pantikapaion) featured a frieze of vines and lilies (second century BC); a tomb in Anfushi near Alexandria depicted date palms and other trees framed by columns (first century BC). It was at this time that gardens made their debut on the inner and outer walls of houses and villas in Republican Italy.
- 22 In Egypt, a large *loculus* (a recess to receive a human corpse) in Room 5 of Anfushy Tomb v in Alexandria, painted in about AD 30, depicts different kinds of trees, shrubs, and aquatic plants.

- In Room 2 of this same tomb painted piers of *trompe l'oeil* foliage are similar in conception to the “open wall” effect of Italian garden rooms, but the more paratactic arrangement of flora follows traditional Egyptian compositions. Anfushy Tomb v on Pharos Island: Venit 2002, 85–90; quite a different kind of garden painting appears in the painted Tomb of Petosiris, dated to the Roman period, where fertility deities of river and land loom large beside trees, with grapes, dates, olives, and wheat: Osing 1980.
- 23 On the optical experience promoted by the room, see Settis 2002.
 - 24 Möller 1890; Gabriel 1955; Caneva 1999, 63–80. Laurel, which grows profusely midway between the observer and the apparent wilderness behind, may have had political connotations, particularly under Augustus. Barbara Kellum has brought attention to the political connotations of trees under Augustus. Ann Kuttner reminds us of the role that Augustan poetry and art played in relation to illustrated plant catalogs being imported into Rome. Kellum 1994; Kuttner 1999.
 - 25 Liljenstolpe and Klynne 1997–8, and Klynne and Liljenstolpe 2000; Messineo 2001, 201–7; Klynne 2005.
 - 26 Pliny, *Ep.* 5.6.19–23; Radice 1963, 139–40.
 - 27 Förtsch 1993.
 - 28 Kuttner 1999a; Jashemski 1979, 73–9.
 - 29 Jashemski 1993, 317–22.
 - 30 Frazer 1992.
 - 31 Bergmann 2008, 58.
 - 32 On the mechanical ceiling panels and cloth curtains that showered guests with treats at banquets, see D’Arms 2000a.
 - 33 See Chapter 12 in this volume.
 - 34 Jashemski 1979, 251–65. There were several outdoor/indoor dining places in this part of town. A small inn just off Via del Abbondanza (I.xi.16) would have given guests reclining on a masonry *triclinium* the illusion of dining in a garden. Painted on the lower north (left) wall was a yellow lattice fence on a black background, a date palm, a long-legged bird (an egret), and in the center of the north wall a bowl-shaped fountain on three legs. In the center of the east (rear) wall was a square fountain supported by a sphinx base in a recessed niche behind a fence.
 - 35 Between the second century BC and the first century AD, there was an exponential increase in the varieties of certain kinds of fruit: it has been estimated from five to thirty-nine kinds of pear; four to twenty-three kinds of apple; six to twenty-nine types of fig; seven to seventy-one kinds of vine. Fruits were even named after people, as, for example, the Matius apple for the famed inventor of *ars topiaria*. *Topiarius*: Pliny, *HN* 16.140; Pliny, *Ep.* 5.6.35; Vitruvius 7.5.2. *Opus topiarium, nemora tonsilia, viridaria tonsa* attributed to Matius in the late first century BC: Pliny, *HN* 12.5.10. On their function: Pliny, *HN* 12.13. On fruits see Casella 1950, 355–6.
 - 36 The facing pharaohs recall a similar juxtaposition in Ptolemais. Actual marble sphinx statues have been found in Campanian gardens and appear represented elsewhere on painted walls, as in the House of Polybios just down the road. On the Egyptian *pinakes* see Knauer 1993.
 - 37 Recent decades have seen a turn away from the religious import attributed to Roman gardens and their decorations as expounded by Schefold 1972. A religious meaning might be expected in tombs and views of gardens are painted in several, such as on the façade of Tomb 19 at the Porta Nocera or the inner walls of the funereal triclinium of the Tomb of Vibius Saturninus. Vestorius Priscus’ tomb in Pompeii displays a painted garden as one of many status symbols. The Tomb of Patro on the Via Latina in Rome is most revealing thanks to the Greek inscriptions identifying the grove as a *locus amoenus*, which Patro deserves (20–10 BC). See Chapter 8 in this volume.
 - 38 *PPM* 6, 137.
 - 39 Guzzo 2003, 402–3.
 - 40 The garden paintings have been analyzed eloquently by Settis 2002.
 - 41 On inventories: Kuttner 1999a.
 - 42 Ling 1991, 150.
 - 43 De Vos 1983; Baldassare et al. 2003, 183 (excellent color image). Farrar 2000, 88; Bergmann 2014a.
 - 44 Pliny, *HN* 36.184; Bergmann 2016.
 - 45 Conze 1912–13, 286, pl. 21 (color); Bingöl 1997, 101; Radt 1999, 98–9.
 - 46 The statues find close marble counterparts in the archaeological museum of Tarragona. Thanks to Gemma Jansen for this information and for sharing her slides. On fountain sculptures, see Kapossy 1969.
 - 47 Jashemski 1993, 331–2.
 - 48 It is now in the Museo Archeologico della Penisola Sorrentina “George Vallet,” Villa Fondi at Piano di Sorrento. See Budetta 2005–6.
 - 49 Sampaolo 1995. Baiae example now in the Fitzwilliam Museum: Vassilika 1998, 132, no. 64.
 - 50 Bergmann 2016 and forthcoming.
 - 51 Bergmann 2002; 2016; forthcoming.
 - 52 *PPM* 1, 140–2; Bergmann 2014b.
 - 53 Fröhlich 1996; *PPM* 4, 621–9.
 - 54 The fisherman was one of four fountain statuettes found in the garden. A sleeping fisher boy lay at his feet, a putto with a goose spurting water through its beak stood on a small column in the middle of a basin inside the fountain, and an archaistic support figure was set up, on the right end. See Fiorelli 1860–4, vol. 2.4, 191–3 for full description. On the popularity of fishermen and other rustic

- figures from the Hellenistic period, see Laubscher 1982; Himmelmann 1980; Bayer 1983.
- 55 D. Michel has discovered lost details from early excavation photographs, especially trees and bushes in the upper zones that indicate an attempt to convey distance through lighter tones: Michel 1990, 55–7, 79–83.
- 56 Although pygmy river scenes are popular in these years (about fourteen examples exist), they usually appear in smaller formats, busily engaged in the lush swamps of the flooded Nile. An analogous, large example on a garden wall is the Nilotic landscape in the House of Apollo. Versluys 2002, 256–8.
- 57 Andreae 1990, 105–14; Jennison 2005.
- 58 Osborne 1989 lists ancient sources; now see Trinquier 2014.
- 59 Varro, *Rust.* 3.13.2.
- 60 Zanker 1990.
- 61 L. Ceius Secundus, presumed owner of the House of the Ceii, was a *duovir*, as was M. Lucretius Fronto. The tomb of C. Vestorius Priscus, an *aedile*, featured animals alongside gladiatorial combats and another freedman, L. Valerius Priscus (possibly of the family that owned the House of the Epigrams [v.1.18], which displayed an animal painting in its peristyle), who sponsored a *venatio*. Andreae 1990.
- 62 Leach 2004, 130–2 points out that Roman writers do not directly connect *paradeisoi* with hunting and wonders why Republican practices would be emulated in Flavian houses; she argues these probably refer to contemporary *venationes* in the arena staged in Rome since 186 BC.
- 63 Not until after the earthquake of 62 do *edicta munerum* (painted announcements of coming games) resume on a regular basis: Maulucci Vivolo 1993.
- 64 Placards also displayed scenes of animal hunts in the arena during the events: Michel 1999, 79; Zanker 1990, 510.
- 65 Animals regularly appear in the context of parks and gardens in the Roman world, as is evident from the multitude of mosaics, statues, and garden representations, such as a marble relief in the Vatican, which depicts wild animals inside a precinct that is enclosed by a garden balustrade decorated with herms: Zanker 1995, 194–5, fig. 107. On animal sculptures, see Liverani et al. 2004.
- 66 Allison and Sear 2002, 11; Ehrhardt 1988.
- 67 Naples Museum 112222. Dimensions: 1.70 m high × 1.85 m wide. The house featured arena scenes in other rooms, leading some to wonder whether the owner was a gladiator. Baldassarre et al. 1990–2003, vol. 1, 80–1; Fröhlich 1991, 241–8 concurs with earlier scholars that this is an example of “popular art,” but reminds us that the desired representation of “reality” was not an exclusively Roman or Italic phenomenon. MacMullen 1966, 166–78; Moeller 1970; Galsterer 1980.
- 68 Pliny on animals: MacKinnon 2004.
- 69 Scagliarini Corlàita and Santoro 2001.
- 70 It is interesting that the representation of African animals shows none of the characteristics ascribed to them in the texts: Mielsch 2005, 55–6, 60–1.
- 71 The owner of the House of Orpheus may have been Vesonius Priscus, who owned the fullery next door: Jashemski 1993, 344–5; Leach 2004, 132; Bergmann 2008, 62–4; Eristov 2014, 93.
- 72 Other Orpheus paintings in the houses of Octavius Quartio, Epidius Rufus (ix.1.20); i.6.13–14; House of Statilius Eros, where the mural depicting Orpheus and animals is destroyed; Stabian Baths (vii.1.8).
- 73 On circular *oscilla*: Taylor 2005.
- 74 Varro, *Rust.* 3.13.2.
- 75 Livy 39.22.1–2.
- 76 Ov., *Met.* 11.22.
- 77 Ling 1991, 152; Bergmann 2008, 65–7.
- 78 Venus as protectress of the Roman garden: Varro, *Rust.* 1.1.6; Pliny, *HN* 19.50; *CIL* iv 2776; Jashemski 1979, 124; Grimal 1969, 49–51.
- 79 Cato, *Agr.* 64.89–90; Connors 1997a, 308: “From Menander onwards in comedy the name Myrrhina is associated with the sexuality that produces legitimate children”; Lilja 1972, index s.v. “myrtle.”
- 80 Fiorelli 1860–4, vol. 2, 321, 331–2; Zahn 1828–59, vol. 2, pl. 13; 80 (plan), vol. 3, pl. 35.2; 43.2; Schultz 1838, 169–75; Breton 1870, 270; Jashemski 1979, 66–7, 83; *LIMC* Adonis 228–9, no. 35; *PPM* 4, 399–432.
- 81 Koortbojian 1995, 23–62; Álvarez-Martínez 1990. Mart. 10.20.6: epigram on Roman fountain decorated with Orpheus and animals. Mart., *Spect.* 21; Sen., *Herv.* 1031–60; Fronto, *Ep.* 53.10–54.12.
- 82 Bergmann 2008, 68–9.
- 83 Jashemski and Meyer 2002, 85 on acacia; 121–2 on the Madonna lily.
- 84 Pliny, *HN* 19.50.
- 85 Theoc., *Id.* 15.112–21, trans. Anthony Verity (Oxford 2002), 48. Gow 1938.
- 86 Burton 1995, 83. Theoc., *Id.* 15 explores crossing boundaries between land and sea, male and female, life and death, god and mortal, joy and grief. From the archaic age Adonis had been described as “delicate”: Ov., *Met.* 10.519–739. On a marble garden sculpture group of Aphrodite Anadyomene type, Adonis, and the boar amid two trees, part of the *nymphaeum* in the villa in Montmaurin, see: Fouet 1969, 131–2. Cf. Pliny, *HN* 19.50.
- 87 The theme of Chiron tutoring Achilles becomes widespread from the early Imperial period, when the statue group could be seen on display in Rome in the Saepta Julia beside another male couple of a

- teacher and a pupil with erotic overtones, Pan and Olympus: Pliny, *HN* 36.29. Grassinger 1999.
- 88 Glotz 1920.
- 89 Platt 2002; Tronchin 2005.
- 90 Computer reconstructions of the now-faded garden murals in Capasso 2002, 31–9.
- 91 On the afterlife of the motifs and subjects in mosaics, see Chapter 12 in this volume.
- 92 Barbet 2008.
- 93 Stročka 1977, vol. 1, 98–102; Krinzing and Christof 2002; Stročka 2002, 295–7 (on the garden paintings); Thür 2005. The same workshop seems to have painted the walls of a room in a nearby house (H2A, north wall) with scattered roses and two birds holding the ends of a wreath in their beaks, all against a white background.

CHAPTER 12

- This essay would not have taken its current form without the lively exchanges with Bettina Bergmann, who also kindly read the manuscript. My gratitude also goes to Kim J. Hartswick, Kathryn Gleason, and Michele Palmer, who all read and commented on this essay. Some of what follows has been previously published in French.
- 1 Malek 1999; Malek 2003; Ferdi 2005, 23–31.
- 2 I will not expand on this because it has been widely discussed by Ferdi 2005, 113–21, pl. LXXXII–94, with complete bibliography. See also Bandinelli 1955, 28 and Elsner 1998, 100–1.
- 3 Suet., *Ner.* 31; S.H.A. *Heliogab.* 21; Jashemski 1979a, 273.
- 4 Ath. 196a–197c.
- 5 Gernet 1928.
- 6 Pl. *Resp.* 2, 372a–c: “And they will build themselves houses and carry on their work in summer for the most part unclad and unshod and in winter clothed and shod sufficiently. And for their nourishment they will provide meal from their barley and flour from their wheat, and kneading and cooking these they will serve noble cakes and loaves on some arrangement of reeds or clean leaves, and, reclined on rustic beds strewn with bryony and myrtle, they will feast with their children, drinking of their wine thereto, garlanded and singing hymns to the gods in pleasant fellowship, not begetting offspring beyond their means lest they fall into poverty or war?” Trans. Shorey 1969.
- 7 Verpoorten 1962, 151.
- 8 Lucr. 5.1393–6, 1417: *Strata cubilia sunt herbis et frondibus aucta* (trans. Bailey 1950).
- 9 Lucr. 2.29–33.
- 10 The juxtaposition of real view and simulation: see Chapter 11 in this volume.
- 11 Scholars of various backgrounds and disciplines have discussed the existence of landscape as a *genre* in Hellenistic and Roman art; however, mosaic landscape representations of the Roman provinces

- have received only brief attention: Roger 1996, 199–200; Berque 1995, 34–5; Bergmann 1991; Bergmann 1992; Bergmann 1995; Bergmann 1999; Bergmann 2001; Bergmann 2002; Rouveret 1982; Rouveret 1989; Rouveret 2006. Dunbabin 1999, 69 notes that in Roman mosaics elements of landscape appear as settings and they are acknowledged by scholars as schematic versions of Hellenistic landscape and occasionally seen as *realia*.
- 12 Philostr. *Imag.* I.IX.5 (Lissarrague 1991).
- 13 Levi 1947, 186–90; Kondoleon 2000a, 71.
- 14 Foucher 1960, 27–9, pls. XI, XII (La Maison de Silène); Foucher 1963, 113–23; Mermet et al. 1995, 109, 114–15, fig. 69; Malek 2005, 1338–41, fig. 4 a–b.
- 15 Ferdi 2005, 69–73, pl. xx; Lassus 1962–5, 74, figs. 1–16.
- 16 Lancha 1981, 157–63, pls. LXXVII–LXXXI.
- 17 Kondoleon 1994, 250.
- 18 Once again, by presenting a visual analogy for the observer’s reclining leisure, the mosaicist induced the viewer to combine the pictorial space with the real space, inviting him to immerse himself in an environment that evokes communing with gods and with nature around a joyful banquet.
- 19 See “Pompeii” in Volume 2.
- 20 Gauckler 1897, 24–7. Ben Mansour 1984; Blanc-Bijon and Darmon 1988–9, 294–7; Mermet et al. 1995, 173–9, figs. 123–5; Malek 2014, 16–17.
- 21 Marginal friezes suggest a tract of land that the eye cannot grasp from a single point of view, depicting for example a succession of scenes of the travels of Dionysus, a trip around the Mediterranean sea, or a journey through a rural estate, as in the *Mosaic of the Scenes from Rural Life* from Oudna: see Gauckler 1897, 24–7; Ben Mansour 1984; Blanc-Bijon and Darmon 1988–9, 294–7; Mermet et al. 1995, 173–9, figs. 123–5.
- 22 Gauckler 1897, 31.
- 23 Jashemski 1995; Durost et al. 2010: a garden with planting pots in a bath complex in Jebel Oust in Tunisia. Unlike in frescoes, depictions of gardens in mosaics are exceptional – only four are known from the Roman African provinces (Oued Athmenia, Carthage, Sidi Ghrib, Pupput), all dating from the end of the fourth into the fifth centuries AD.
- 24 See Chapter 10 in this volume.
- 25 Achilles Tatius, *Leucippe and Clitophon*, I, xvi, 1–3. Trans. Whitmarsh 2002.
- 26 Ennabli and Ben Osman 1983, 132, 147–8; Malek 2014, 17–19.
- 27 For more on discussion of gardens see Grimal 1984; Littlewood 1987; Stackelberg 2009. See also Chapter 10 in this volume.
- 28 See also Chapter 10 in this volume.
- 29 Darmon 1980, 20–1, 85–6, 146; for courtyard water basins, see Brulhart 1995; Malek 2014, 20–1.
- 30 Bergmann 2001, 157.
- 31 Servius, *Ad. Aeneis*, 1.159.

- 32 Verg., *Aen.* 1.420–40.
- 33 Lavagne 1988, 469.
- 34 Fabre-Serris 1996, 23–4; Curtius 1991, 240.
- 35 Malek 1999a, 343–67.
- 36 *Mosaic of Lord Julius*, Carthage: Dunbabin 1978, 62, 119–21.
- 37 *Filosoficus Locus Mosaic of Oued Athmenia*: Hanoune 1992, 175; *Mosaic of the Baths of Sidi Ghrib*: Ennabli 1986; Morvillez 2014, 161–76.
- 38 *Mosaic of the Punished Putti of Henchir Thina*: Germain 1979; Yacoub 1995, fig. 47. *Mosaic of the Putti Hunters in Carthage*: Salomonson 1965, 36–41, figs. 4a, b, c; pls. xxii–xxiii; Germain 1979, 180–1, fig. 6.
- 39 Ben Abed-Ben Khader and Beschauoch 1994.
- 40 Bergmann 2001.
- 41 Bergmann 2001, 155.

CHAPTER 13

- 1 Grimal 1984, 259; Scagliarini Corlàita 1981, 9; Tessaro Pinamonti 1984, 55. Some of what follows has been previously discussed in Hartswick 2004.
- 2 Ieranò 2001. Another possible example is a mosaic pavement from a villa in Bobadilla (Spain) that depicts Priapus. A statue of Priapus, now in the Museo Arqueológico Nacional in Madrid is said to have come from Bobadilla. See Oliva 1987.
- 3 Neudecker 1988, 78.
- 4 Pliny, *HN* 15.38.
- 5 George 1998 discusses sculptures in *atria* and their association to decorations of peristyles.
- 6 Villa of the Papyri: Neudecker 1988, 105–14; Tiberius' villa on Capri: Maiuri 1956, 63–5, pl. 33. For art in *cubicula* see: Pliny, *HN* 34.62, 35.3, 35.5, 35.70; Suet., *Tib.* 43.2, 44.2; *Calig.* 7.1; *Ner.* 25.2.
- 7 “Corinthian” bronzes were composed of artificially patinated alloys in order to create a black metal with a shiny surface that could be enhanced with inlays of metals such as gold, silver, and copper. For a description of the chemical processes involved see Giunlia-Mair 2002.
- 8 On the other hand, a statuette of Hercules was lauded by Statius (*Silv.* 4.6), and described by Martial (9.43–4). Verres' refusal to hand over a small bronze cost him his life while in exile: Cic., *Verr.* 4.54; Diod. Sic. 20.63. See Emanuele 1989, who considers *corinthia* to be cheap surrogates.
- 9 Purcell 2001, 546–7.
- 10 See Stirling 2005, 15–28.
- 11 Hor., *Epist.* 1.1.100.
- 12 Bowe 2004, 16.
- 13 Vitruvius, *De Arch.* 2.1.2; see Rykwert 1972.
- 14 Jashemski 1993, 292–305, no. 596, fig. 328.
- 15 Vitruvius, *De Arch.* 6.6.5; cf. the Villa Prato at Sperlonga, dating from 130 BC to before 40 BC, which had a monumental façade that may have echoed contemporary public architecture such as Hellenistic sanctuaries of Latium: Broise and Lafon 2000.
- 16 For example, see Clarke 1996, figs. 15, 16 (villa of Oplontis, *caldarium* 8, and House of Livia, Room iv, respectively).
- 17 Purcell 1996a, 144–6.
- 18 Neudecker 1988, 50, pl. 5: these statues may all have been displayed in the theater.
- 19 Cic., *QFr.* 3.1.5.
- 20 It was possible to arrange herms in alphabetical order probably as marble representations of classical learning: Neudecker 1988, 66.
- 21 See Di Palma 1998 and Campbell 2014. See Quint. 3.6.18, who posed a legal argument about a man who could be accused of being a professional actor because he had performed before the praetor in his private gardens. Although hypothetical, Quintilian's remarks must have been based on real theatrical productions taking place in private gardens.
- 22 Tac., *Ann.* 15.37, 44. Zanker 1995, 204 discussed the stage-like quality of Roman suburban villas against which real Greek philosophers, teachers, scholars, and poets would act as “props.” See also Beard 1998, who briefly discusses (among other interesting items) the theatrical quality of Roman gardens.
- 23 Neudecker 1988, 5 and 115, n. 1171.
- 24 Varro, *Rust.* 1.2.10; Cic., *Verr.* 2.4.126.
- 25 See Pliny, *HN* 36.23 (Praxiteles) and 36.25 (Skopas). Isager 1991, 168, and Chioffi 1996, 84. See Grimal 1984, 158, who believed the *horti Serviliani* were near the via Ostiensis.
- 26 The irony is that a large portion of ancient sculpture housed in modern urban Roman museums derives from the suburb, and likely from ancient garden displays: Champlin 1982, 107 and n. 59.
- 27 See Cic., *Verr.* 2.4 for Mummius' statues beside the Temple of Good Fortune. According to Pliny (*HN* 36.23–34; 25.125) Lucullus was prepared to pay a fabulous sum (perhaps as much as one million sesterces according to one manuscript) for a statue of “*Felicitas*” by Arkesilaos (a contemporary Neo-Attic sculptor), and did pay two talents for a copy of a work of the fourth-century painter Pausias, made by Dionysius of Athens.
- 28 Cic., *Tusc.* 5.102.
- 29 Rawson 1985, 194.
- 30 See Neudecker 1988, 78 for relevant references and discussion of this phenomenon.
- 31 Paus., 8.46.
- 32 Suet., *Aug.* 72.3.
- 33 In Second Style Pompeian paintings no statues appear in gardens, which may reflect Augustus' lack of sculptures in the decoration of his imperial gardens. See Moormann 1988, 42.
- 34 Pliny, *HN* 36.23–5, 36.33–4.

- 35 Neudecker 1988, 80.
- 36 Cic., *Phil.* 2.42.109 and 3.12.30: "He has gutted Caesar's well-furnished house; pillaged his gardens; from them transferred to himself all their appointments (*ornamenta*).³⁵ For Verres' collection see Cic., *Verr.* 1.51, and Miles 2008, 157–8, 202–4.
- 37 Pliny, *HN* 36.33, 35.10, 7.115. Pollio founded the first public library, in which his sculptural collection may have been displayed, although Pliny does not state specifically that this was the case. According to Neudecker 1988, 80, visitors may have thought of Pollio's collection as a museum, but it had not been conceived as such.
- 38 Cic., *De Or.* 1.162; *Verr.* 2.4.4–5. See also Zimmer 1989, 493–520.
- 39 Rawson 1985, 114; Pliny *NH* 35.24–6.
- 40 Isager 1991, 167. As Isager pointed out, since Pliny does not mention works of art on public edifices, it is noteworthy that he commented on an arch on the Palatine (Pliny, *HN* 36.36) dedicated to Octavius, natural father of Augustus, on which was placed by the emperor images of Apollo and Artemis (carved from a single stone) by the Greek artist Lysias, and displayed in a temple-like construction atop the arch.
- 41 Strong 1973, 254.
- 42 Watson 1998, *Dig.* 33.12.23: "Figures and statues fixed in place are not included in the *instrumentum* of a house but are part of it. Those, however, which are not fixed are equally not included ... for they are reckoned with the furniture ..."; *Dig.* 30.41.12: "What then is to be said of statues? If they are fixed to the walls, their removal will not be allowed; but if they stand elsewhere, there is room for doubt. But the intention of the senate is best taken as fully as possible, so that if any statues were there permanently, they should be treated as a part of the house and not be removed." (See also Neudecker 1988, 116 and n. 119.) Panel paintings were also seen as physically part of the wall and therefore protected by law from being removed: *Dig.* 30.41.13: "Furthermore, it must be said that pictures fixed and joined to the walls and individual images flush with the walls cannot be bequeathed either"; *Dig.* 33.12.36: "Only those pictures are held to be legated which were in some sense ornaments of the villa."
- 43 See Watson 1998, *Dig.* 18.1.34: "for we often buy something by reason of what goes with it, say, a house by reason of its marbles, statues, or pictures." For a fine discussion of the buying and selling of gardens see Frass 2006, 46–84.
- 44 Neudecker 1988, 116; see Tac., *Ann.* 1.73; Pliny, *Ep.*, 10.8. It was not permitted to remove material from a town or country house except for use in a public building in the same *civitas* as the house, but it was acceptable for the owner of a house to transfer material to his other house in another *civitas*. See Watson 1998, *Dig.* 30.41.5.
- 45 Pliny, *Ep.* 6.2.5. It may, however, have been an unusual case for a private owner to prefer statues of himself.
- 46 Cicero (*Att.* 12.37) runs into problems in his attempt to purchase the gardens of Scapula (in the Vatican plain), whose heirs contemplated dividing it into four parcels for bidding among themselves or for public auction. It is likely that at least some of the sculptures there were conveyed with the land.
- 47 For Tiberius' purchases see Suet., *Tib.* 44; Pliny, *HN* 36.197.
- 48 Neudecker 1988, 116.
- 49 Neudecker 1988, 116, n. 1200; Saturnalia: Hor., *Carm.* 4.8; Mart. 10.87.15; lawsuits: Tac., *Ann.* 11.1, 12.59, 13.18; *Hist.* 2.92; plundering during fires: Sen., *Controv.* 2.1.12; theft: Mart. 6.72.
- 50 Stirling 2005, 20.
- 51 Suet., *Ner.* 11.2; Pliny, *HN* 36.197. The Seii family estate was near the porta Esquilina: see Corbier 1983.
- 52 Neudecker 1988, 116–17; S.H.A. *Marc* 17.4; Suet., *Tit.* 8.4.
- 53 Cic., *Att.* 12.29 and 33, mentions him in 45 BC as splitting up *horti* on the Tiber and selling the lots at a fixed price. Elsewhere Cicero (*Fam.* 7.23.2), who wishes to sell some statues, is anxious to obtain the services of Damasippos or someone like him. See also Hor., *Sat.* 2.3.16, 64, who satirized a Damasippos for his bankruptcy, probably the same art dealer mentioned by Cicero. According to Pollitt 1978, 164: "Damasippos promised to buy some unwanted sculpture from Cicero but had failed to carry through his intentions, perhaps because he was bankrupt." See also Rawson 1976, 101, and Rawson 1985, 89, who suggests that Damasippos may be the son of the praetor Junius Damasippus, killed by Sulla. Pollitt (above) n. 13 claims that Damasippos had his own sculptural collection in his gardens. For the ownership of gardens along the Tiber see Grimal 1984, 110–22. Note also that Martial (5.62) summoned his patron to brief him (*instruere*) on a newly acquired *hortus*.
- 54 Sen., *Ep.* 114.1: according to Bodel 1997, 5, a possible proverb may have been something like "qualis villa, talis vita." See also Neudecker 1988, 116. According to Cicero accreditation must be house by master, not master by house (*Off.* 1.139), citing an unattributed verse: "For it makes you sick when passers-by say: 'O house – alas – so ill-matched the master you're owned by!'" Cicero laments that in his day "this can be said in many a case."
- 55 Cic., *Brut.* 24; Diog. Laert. 3.25.
- 56 Cic., *Att.* 4.10.1.

- 57 Plut., *Dem.* 30.5–31; Laubscher 1982, 86, n. 360.
- 58 Sen., *Ep.* 64.9: *Quidni ego magnorum virorum et imagines habeam incitamenta animi et natales celebrem? Quidni ego illos honoris causa semper appellem?* (“Why should I not keep statues of great men to kindle my enthusiasm, and celebrate their birthdays? Why should I not continually greet them with respect and honour?” Trans. Gummere 1953, 443.)
- 59 Bounia 2004, 203.
- 60 Cic., *Arch.* 12.30.
- 61 Bounia 2004, 203. See also Bergmann 2001, and O’Sullivan 2003, 133–52.
- 62 Zanker 1995, 203, 208. For the social status of sculptural collections see Neudecker 1988, 122 and n. 1281.
- 63 Harris 1979, 48–51.
- 64 Rouveret 1981, 25; Rouveret 1987, 125.
- 65 Hor., *Epist.* 2.1.156–7; Varro, *Rust.* 2.1.
- 66 For example, Cic., *Rep.* 1.18; *Div.* 1.8.
- 67 Pliny, *HN* 36.23–35, 36.33–4. See also Stat., *Silv.* 2.2.63–72 for the artistic sensibility of Pollius Felix.
- 68 Philostr., *VS* 18–20.
- 69 Mart. 3.62.
- 70 See criticism by Apollonius of Tyana in Philostr., *VA* 5.22.
- 71 Pliny, *Ep.* 8.18.11.
- 72 Cic., *Verr.* 1.51.
- 73 See Stat., *Silv.* 2.2.63–8, and even Prudentius (a Christian poet), *Perist.* 10.266–70, 291–3.
- 74 Miles 2008, esp. 44–60.
- 75 For familiarity with Greek literature, see Preissshofen and Zanker 1970–1. Plutarch tells us how Roman art tourists moved in Greek sanctuaries as if they were public museums (Plut., *Mor.* 394–402B). Vergil (*Aen.* 1.494–5) had Aeneas behave like an educated tourist on a Grand Tour of Carthage.
- 76 Cic., *Att.* 1.4.3 (66 BC when Cicero was in his early thirties).
- 77 Similarly, according to Fant 2002, the furniture made of Greek marble was positioned for greatest visibility in the peristyle garden of the House of the Vettii in Pompeii.
- 78 Bek 1980, 180. See also Quint., *Inst.* 7.7.4–6: a law states that statues of tyrannicides shall be set up in the gymnasium, but not that of a woman. Quintilian raised the potential conflict of such a law if a woman were to kill a tyrant.
- 79 Small 1997, 231.
- 80 Vitruv., *De Arch.* 7.5.5.
- 81 Varro, *Ling.* 9.9, 46.
- 82 See Bartman 1988.
- 83 Cic., *Fam.* 7.23.3 (58 BC). Steeped in classical culture, John Adams, second president of the United States, remarked, as Cicero, that he always wanted “to see my grass and blossoms and corn ... But above all except the wife and children, I want to see my books,” Butterfield et al. 1961, vol. 1, 338. A library, according to Victor Hugo, “implies an act of faith” (in his 1872 poem “A qui la faute?” from his series “L’Année terrible”), a sentiment with which, I believe, Cicero and Adams would have been in full agreement.
- 84 Pliny, *HN* 35.26, 35.83.
- 85 Juv. 8.100–4 (cf. Hor., *Epist.* 2.1.93–8; Cic., *Verr.* 4.132–4). Ridgway 1981 found no hard evidence for sculptures displayed in Greek domestic settings nor even in spaces with pleasure fountains and greenery where such sculptures could be expected.
- 86 Ath. 5.196.e.
- 87 Petrochilos 1974, 63–7, 197–201.
- 88 Pandermalis 1971; Sauron 1980.
- 89 Wojcik 1986; Warden and Romano 1994, 228–54.
- 90 Neudecker 1988, 82; Quint., *Inst.* 11.2.20.
- 91 Bek 1980, 233.
- 92 De Caro 1987, 129.
- 93 Stackelberg 2009, 111–13.
- 94 Stirling 2005, 265, n. 104.
- 95 See Döhl and Zanker 1979, and Zanker 1983, 27–31.
- 96 Neudecker 1988, 88. Cf. Cic., *Verr.* 4.126; Cic., *Tusc.* 5.102; Pliny, *HN* 36.27.
- 97 Plutarch, *Mor.* 243C. See also Dio Chrys. 12.53; Plut., *Mor.* 575B.
- 98 See Dwyer 1982, 123–4, and Raeder 1983, 293–8; cf. Catull. 64.384–96.
- 99 Bounia 2004, 163.
- 100 Spyropoulos 2001.
- 101 There may have been statues in the “alcove” at Fishbourne: Cunliffe 1998, 128–48, pls. 36–42, II–IV, fig. 30; Cunliffe 1981.
- 102 Stirling 2005, 175–7.
- 103 Wrede 1972.
- 104 Wrede 1972, 89.
- 105 Sivan 1993 and Etienne 1962 have suggested that a fourth-century villa at Saint-Georges-de-Montagne (which had a collection of sculptures) may have been owned by Ausonius.
- 106 Callistratus, *Descriptiones* 5. For a fine discussion see Elsner 2007, 137–42.
- 107 Wrede 1985, 41; Neudecker 1988, 68, 145–8.
- 108 Farrar 1998, 204–5 (Table 1) and 125–7. See a possible “herm gallery” at the villa of Cassius near Tivoli: Neudecker 1988, 234.
- 109 See Jashemski 1979, fig. 147 and Sogliano 1898, esp. 269.
- 110 Oliva 1987.
- 111 Dickmann 1999, 354.
- 112 Dickmann 1999, 351–3. In general, the Republican peristyle appears not to have been closed off with barriers between the columns. The visitor therefore was invited to stroll into and among the plants, trees, and sculptures of a Republican

peristyle but not in a peristyle closed by barriers between the columns as in the Imperial period.

113 Campitelli 2003, 22.

114 Dwyer 1982, 38–54, ill. 1, figs. 111–17.

CHAPTER 14

- 1 A broader discussion of this issue is explored in Gleason and Palmer 2013.
- 2 La Rocca 1998; Netzer 2001a; Meneghini et al. 1990; Nielsen 1999; Royo 1999; Gros 1987.
- 3 O'Sullivan 2011.
- 4 Bergmann 2008; O'Sullivan 2011, 134–42.
- 5 Vit. 9.5–6; Gleason and Palmer 2013, 281–90.
- 6 Klynne and Liljenstolpe 2000; Meneghini et al. 1990, 79–97; Villedieu 2001, 94–8; Bedal et al. 2011.
- 7 See Vit. 1.2.5.
- 8 Few have the ability to mentally visualize in detail an entire architectural design. Those who can, such as the famous autistic designer, Temple Grandin, who designs and tests a scheme *entirely* in her head, are considered savants. Ancient designers, on the other hand, may have made a greater use of spatial memory and convention than is typical today, and certainly, the mnemonic spatial devices used in Roman oratory fascinate modern designers: Yates 2001, 17–41.
- 9 Volume 2 presents the range and, of course, these examples are but a small sample of designs across the empire.
- 10 Agennius Urbicus, *Commentarium de controversiis agrorum* 5–10. Campbell 2000, 22–3.
- 11 Wilson-Jones 2003, 50–9.
- 12 Gleason 1994.
- 13 Gleason 2013.
- 14 Pliny, *Ep.* 52.
- 15 Romano 2005. The garden features are reported for the first time in Volume 2.
- 16 Ciarallo and Mariotti Lippi 1993.
- 17 Grimal 1984, 167–90.
- 18 Meneghini 2009, 79–97.
- 19 Klynne 2005.
- 20 Villedieu 2001.
- 21 Gleason 2010.
- 22 Jashemski 1993, 293–301.
- 23 Netzer 2001a.
- 24 Prop. 2.32.20.
- 25 Landgren 2013, 84–94.
- 26 Villedieu 2001, 94–7.
- 27 Landgren 2004, 185–90.
- 28 Landgren 2013, 80–1.
- 29 Landgren 2004, 191–2.
- 30 Cic., *QFr.* 3.1.5–6 and Landgren 2004, 180–1.
- 31 Netzer and Laureys-Chachy 2006, 13, 304. Gleason and Bar Nathan 2013.
- 32 Hazlehurst 1980.
- 33 Landgren 2013, 82–5.
- 34 Purcell 1996a, 144.
- 35 Pliny, *Ep.* 52.
- 36 Pliny, *HN* 16.59.137.
- 37 Landgren 2004, 180–81; MacDonald 1982, 126; Taylor 2003, 246.
- 38 Vit. 1.2.1–2: Rowland and Howe 1999, 25.
- 39 Vit. 1.2.2: Rowland and Howe 1999, 25.
- 40 Jashemski 1993, 31, 5, 372, 387, respectively.
- 41 Gros 2008; Taylor 2003, 31.
- 42 Lucr. 4.426–431; Vit. 1.2.2.
- 43 Jashemski 1993, 400.
- 44 Jashemski 1993, 394–402.
- 45 Vit. 10.16.4.
- 46 For a fuller discussion on landscape architecture in Vitruvius, see Gleason 2013. All translations in this section are by Rowland and Howe 1999, 24.
- 47 Vit. 1.2.1–2.
- 48 Jashemski 1979, 32.
- 49 Wilson-Jones 2003, 49–59.
- 50 Wilson-Jones 2003, 50; Haselberger 1994.
- 51 See Roland and Howe 1999, 23: Vit. 1.2.3.
- 52 Wilson-Jones 2003, 43.
- 53 See, for example, Gleason 1994, 18.
- 54 Vit. 1.2.5–7: Rowland and Howe 1999, 25.
- 55 Cic., *Off.* 2.60.
- 56 Vit. 1.2.2.
- 57 Rowland and Howe 1999, xvi.
- 58 DeLaine 1997; Taylor 2003.
- 59 Leone 2010.
- 60 Frischer et al. 2006, vol. 1, 72–4.
- 61 Taylor 2003, 69.
- 62 Guldiger Bilde 2005.
- 63 Netzer, 2001a, 7–8, 175–217.
- 64 Carroll and Godden 2000.
- 65 Netzer 2001a, 55–60.
- 66 Gleason 1993.
- 67 Jashemski and Salza Prina Ricotti 1992.
- 68 Gleason and Palmer 2013, 10.
- 69 Price 1932, 135–42; Palmer, Forthcoming.
- 70 Price 1932, 135–42.
- 71 Gleason and Palmer 2013, 277–315.
- 72 Vit. 5.9.7: Rowland and Howe 1999, 71.
- 73 Howe et al. 2017; Jashemski 1979, 298, fig. 450.
- 74 On Horace's Villa, where the start of a path along the central axis of the courtyard was found to be of compacted earth, see Malek 2013, 607–14; in area AB at Jericho, Netzer found rows of pots installed in the earlier Hasmonean beaten earth surface. See Gleason and Bar-Nathan 2013, 327. There and at Herodium the earth around the pool appears to have been beaten (tamped and compacted) or perhaps smoothly finished with a coat of lime plaster.
- 75 Frischer et al. 2006, 8.
- 76 Bedal et al. 2011, 324.
- 77 Thompson 1936, 401–4.
- 78 Robinson 2006–7.
- 79 Gleason et al. 2006, 85; 671, fig. 17; 674, fig. 23.
- 80 White 1970, 247.

- 81 See Chapter 16 on planting techniques. Also, cf. Kenawi et al. 2012.

CHAPTER 15

This chapter is a revised version of my presentation at a conference at Dumbarton Oaks (Washington DC) held in February 2003. I want to thank Professor W. Jashemski for her kind invitation to write this chapter and her warm support. I also wish to thank Dr. M. Conan, Director of Garden and Landscape Studies, and Dr. A. M. Talbot, Director of Byzantine Studies, at Dumbarton Oaks. This chapter could not have been written without many conversations and help from a number of scientists: Dr. M. van Binnebeke (Maastricht, The Netherlands), L. Burés Vilaseca (Barcelona), Professor J. E. Foss (University of Tennessee), Dr. V. Hipólito Correia (Conimbriga Museum, Portugal), Dr. H. Manderscheid (Rome), Professor E. M. Moormann (Radboud University of Nijmegen, The Netherlands), Dr. P. Olivanti (Soprintendenza archeologica di Ostia antica), Professor W. Peters (Nijmegen, The Netherlands), Dr. M. Santos Retolaza (Empúries Museum, Spain), Architect E. Salza Prina Ricotti (Rome), and Dr. E. J. Shepherd (Soprintendenza archeologica di Ostia antica). To write this chapter, a research permit was granted by Dr. P. G. Guzzo, Soprintendenza archeologica di Pompei, and Dr. A. G. Zevi, Soprintendenza archeologica di Ostia antica, to research several houses and gardens of Pompeii and Ostia. This investigation was financially supported by the Netherlands Organization for Scientific Research (NWO). Part of this essay was previously published: Jansen 2005.

- 1 For an explanation of Roman gardens and their different types, see other essays in this volume.
- 2 Jashemski 1993, 19: "Much research is needed on the water systems, not only at Pompeii or Herculaneum, but in the various villas."
- 3 Discussions of the water technology and water works in general surveys of Roman gardens are to be found in Grimal 1969, 293–9 (les eaux des jardins, based mainly on Latin texts), Jashemski 1979, 41–8 (mosaic fountains), Jashemski 1993, 7–9, and Farrar 1996, 20–7 (water features), discussing mainly pools and fountains. Articles devoted to water in Roman gardens exclusively are Pagano 1992 and Jashemski 1996.
- 4 Carroll-Spillecke 1989, 64, "denn gerade auf der wasserarmen Insel Delos ist der Garten im Haus undenkbar." For a discussion of whether paved courtyards are gardens, see Chapter 1 in this volume.
- 5 For example, Grimal 1969; Salza Prina Ricotti 1987.
- 6 Moormann 1988, 44–8, 53, 57; Jashemski 1993, 11, 313–92.
- 7 See Chapter 11 in this volume.
- 8 The water supply of this garden has been published, see Broise and Jollivet 1998. However, the actual information and evidence on this subject and the garden itself remains sketchy.
- 9 An overview of the gardens of the Palatine Hill (and fountains in them) can be found in Tomei 1992. More recently the results of the excavation of the École française de Rome in the so-called Vigna Barberini have been published, see Villedieu 2001. At this location, different gardens from different periods have been found on top of each other.
- 10 Pompeii's neighboring city, Herculaneum, will not be included, as it resembles Pompeii with regard to its gardens and water supply. For minor differences in water supply between both cities see Jansen 2002.
- 11 Eschebach 1979; Eschebach 1979a. The description of the water supply in this chapter is based on my own research: Jansen 1997, 2000, 2001, and 2002.
- 12 Jansen 2002, 14.
- 13 Only ten cisterns have been excavated fully and they show a capacity varying from 12 m³ to 75 m³, with an average of 42.7 m³. See Jansen 2002, 77, n. 88.
- 14 It seems not wise to place pots in these gutters, especially in the corners where the downspout is very strong; in the House of Meleager (vi.9.2) there is a large *dolium* placed in the corner to capture runoff.
- 15 This is attested for at least four Pompeian houses without a connection to the public mains, see Dickmann 1999, 309, n. 63. The most famous are the raised flower boxes in the House of Loreius Tiburtinus (ii.2.2) combined with a fountain.
- 16 For example, the one in the House of the Silver Wedding (v.2.1) and the House of Lucretius Fronto (v.4.a). For further information, see Jansen 1997.
- 17 See Jansen 2000. Amounts of rainwater flowing in the streets quoted in this chapter are taken from a computer model, also published in Jansen 2002, Appendix 4.
- 18 The overflow of the street fountain on the Via di Castricio in front of *insula* ii.16 could theoretically supply these gardens with a more regular flow of water. However, this water was drained west along the Via di Castricio in the direction of the Via Stabiana.
- 19 Jashemski 1993, 219, plan no. 449.
- 20 For new theories about the origin of Pompeian water supply see the revolutionary work of Ohlig 2001. According to Ohlig, from 80 BC Pompeii was supplied by a spring in Avella. In Augustan times the city was connected to the Serino water line and received less water than before.
- 21 For more technical information on the function of the water towers, see Wiggers 1996.

- 22 This house is also a very good example of the fashion, or, as Dickmann (1999, 306) calls it, the “fever,” since Augustan times to transform *atria* from severe entrance halls into showcases of marble furniture and fittings: marble table, marble pedestal with fountain statuette, and marble water basin. Although the courtyard we are discussing here is not an *atrium* but a peristyle, it resembles an *atrium* in smallness and position in the house. See the interesting discussion of Dickmann 1999, 301–12.
- 23 This house was excavated in 1860 and not much is known about the actual finds. More pots may have been found on the courtyard floor.
- 24 Old pictures and drawings show the original position of the fountain statue (Pompeii inv. 20395) and the head of Jupiter; see for example Gusman 1899, 337 and Jashemski 1993, 196 (also a description of the garden).
- 25 As suggested by Jashemski 1993, 196.
- 26 Maiuri 1927, 49 assumed that this tower was supplied by rainwater. However, it is obvious that the tower was supplied by a lead water pipe coming into the house from the street. Besides, the basin in the top of the tower is too small to function on rainwater alone. For pipes see, Maiuri 1927, 49, 62.
- 27 Maiuri 1927, 61.
- 28 The basin has been rebuilt and made waterproof again in modern times. Here water was stored for modern gardening and a modern lead pipe is present. The two terracotta drains the excavator describes are no longer visible: Maiuri 1927, 61. According to Maiuri these could be closed and opened alternately in order to water half the garden at a time.
- 29 See for a detailed description Jashemski 1993, 316.
- 30 For more examples see Jansen 2001.
- 31 This can be seen in an old photograph published in *PPM* 1, 310.
- 32 See Jansen 2001, 30.
- 33 The only exceptions are the nine taps at the foot of the fountain pedestals in the peristyle of the House of the Vettii (vi.15.1/27).
- 34 Jansen 2001, 37.
- 35 For example, at the House of Pansa (vi.6.1) and House ix.5.5/7.
- 36 Jashemski 1979, 23–30.
- 37 Jashemski 1979, 30–1. In the peristyle garden of the House of the Priest Amandus (i.7.7), of the House of the Silver Wedding (v.2.1), of House vii.6.7, of House vii.6.28, of House vii.6.38, and of House vii.6.30/37.
- 38 Jashemski 1979, 31–2. House i.9.6, House i.12.8, House i.12.11, House of the Ship Europa (i.15.2/3), House i.16.2, House of the Arches (i.17.4), House of the Sibyl (ii.1.12).
- 39 See Jansen 2002, 82, n. 204, for a list of houses connected with the aqueduct.
- 40 Ciarallo 1991–2 and Ciarallo and Mariotti Lippi 1993.
- 41 For example, House i.7.2–3, House vii.7.5, and House viii.5.2. Of these examples only House vii.7.5 has a street fountain in front of the house. The owners of the other houses had to fetch water at street fountains more than 40 meters away. The other option is that these pools were filled with cistern water.
- 42 For a catalog of the elements of the water supply, see Ricciardi and Scrinari 1996 (not always trustworthy), and the more reliable studies of Bruun 1991, 285–303. See also Schmölder 2000 and Schmölder 2002. For an analysis of water supply and drainage, see Jansen 2002 and 2006.
- 43 Pliny, *Ep.* 2.17.25.
- 44 These were found only in the Republican period.
- 45 The excavations of DeLaine prove that the open space at the back of the Insula of the Paintings (i.4.4) and the neighboring Insula of the Child Bacchus (i.4.3) was once a garden. Large windows from the two buildings gave views onto this open space. There was a garden shrine with a statue of Jupiter; water features, however, were not found in this garden.
- 46 See Becatti 1948, 8; Ricciardi and Scrinari 1996, vol. 2, 197–9.
- 47 See Becatti 1948, 23–5; Boersma et al. 1985, 140–1, 156; Ricciardi and Scrinari 1996, vol. 1, 58; vol. 2, 169–70, 234–5.
- 48 Becatti 1948, 23. The measurements are 3.10×5.40 m.
- 49 It is unknown whether the basin in the courtyard was supplied with tap water.
- 50 See Becatti 1948, 19–20; Ricciardi and Scrinari 1996, vol. 1, 125; vol. 2, 139–40, 223–4.
- 51 See Volume 2: House of Fortuna Annonaria, Pompeii (iv.2.8).
- 52 It is a pity that up until now no book or article has been published about the water supply, toilets, and drainage of this city. Many elements have been excavated and it would be a very rewarding study.
- 53 Alarcão and Etienne 1987, 51–60.
- 54 Alarcão and Etienne 1987, 60–1.
- 55 For the two houses and images of the pipes, see Bairoão Oleiro 1992, vol. 2, 22–3 and Hipólito Correia 2001, plan 7.
- 56 Hipólito Correia 2001, plan 7.
- 57 Alarcão and Etienne 1987.
- 58 For more information, see Alarcão and Etienne 1987, 71–3, and Hipólito Correia, 2001.
- 59 See Burés Vilaseca 2000 and her impressive monograph, Burés Vilaseca 1998, on the water supply of this city.
- 60 Burés Vilaseca 1998, 47, fig. 9. Given the amount of rainfall at Ampurias it is not surprising it had more (although slightly smaller) cisterns per house than at Pompeii.

- 61 Burés Vilaseca 1998, 71.
- 62 In its first phase House 2 was occupied by two separate houses, 2A and 2B. See Volume 2: Ampurius.
- 63 Burés Vilaseca 1998, 325–34.
- 64 For wells, see Burés Vilaseca 1998, 192, and Burés Vilaseca 2000, 265.
- 65 Pers. comm. with M. Santos Retolaza.
- 66 Salza Prina Ricotti 1998, 364.
- 67 See for the garden of the Canopus and the Watercourt, Jashemski and Salza Prina Ricotti 1992. For an overview of all gardens see Salza Prina Ricotti 1998 and 2001, 321–87.
- 68 For the Stadium garden, Hoffmann 1980, 18–19, 28; for the garden in the Central Vestibule, see Volume 2: Hadrian's Villa.
- 69 See Volume 2: Hadrian's Villa.
- 70 Jashemski and Salza Prina Ricotti 1992, 58; pers. comm. with E. Salza Prina Ricotti, who called the soil around the Canopus "acid and corrosive."
- 71 See for this especially Foss 1992, 596.
- 72 Salza Prina Ricotti 1999, 244–5, and 2001, 69–75.
- 73 Salza Prina Ricotti 2001, 321.
- 74 Foss 1992, and Scudder et al. 1996, 36–7, argue that the high levels of calcium and the calcium deposits on the tuffa underground indicate the area was irrigated. However, from his more recent research into the gardens and lead pipes of Horace's villa, Foss reconsiders this statement. He thinks that the lead-polluted areas are a result of contamination by building materials and of irrigation by lead pipes (pers. comm.). This is also the opinion of Salza Prina Ricotti 1998, 395–9.
- 75 Salza Prina Ricotti 1998, 367. See also Ehrlich 1989 for an evocative description of the "structural role of water architecture in Hadrian's villa," in which she portrays Hadrian as "a virtuoso amateur architect, who thrived upon the creation of magnificent watershows."
- 76 See the very good chapter on waterworks and landscape in Macdonald and Pinto 1995, 170–82.
- 77 This important aspect of the villa (water supply, water use, and drainage) has been studied the last few years by a team led by Professor H. Fahlbusch (Fachhochschule Lübeck, Germany) and Dr. H. Manderscheid (Rome). The project is titled *Wasserkultur in der Villa Adriana in Tivoli*. For the first articles on this subject with a state of the art and with results of the first research, see Manderscheid 2000 and Manderscheid 2002. Since 2000 Dr. J. M. Hansen (Copenhagen) and a Danish team have been studying the external water supply of the villa and its possible connection to the urban Roman aqueducts. It is the objective of the collaboration between the two international teams and the Soprintendenza Archeologica per il Lazio to finally understand the basis for the hydraulic infrastructure of the villa.
- 78 Manderscheid 2000, 111–17.
- 79 See Jashemski and Salza Prina Ricotti 1992, and Salza Prina Ricotti 1998.
- 80 Jansen 2003.
- 81 Jashemski and Salza Prina Ricotti 1992.
- 82 For an extended discussion see Jansen 2002, 181–97.
- 83 An exception are the Roman houses of Ampurias where, so far, no toilets have been excavated.
- 84 Jashemski 1993, 1.

CHAPTER 16

- 1 Foss et al. 2002, 77–8.
- 2 Strabo 5.4.8.
- 3 See Jashemski 1979, 255–6 for a discussion of the analysis of Campanian soil made by the pedologist (soil specialist) John Foss.
- 4 Guldager Bilde 2005.
- 5 Cato, *Rust.* 5.5.8; Verg., *G.* 2.346.
- 6 Theophr., *Hist. Pl.* 7.5.1.
- 7 Columella, *Rust.* 10.80–5.
- 8 Buck 1983, 29–30.
- 9 White 1970, 125–45.
- 10 Miller and Gleason 1994.
- 11 Carroll 2003, 110, cf. fig. 87 for the mosaic.
- 12 Bedal et al. 2011, 315, 327.
- 13 Gracie and Price 1979, 13.
- 14 Jashemski 1995.
- 15 Sokolowski 1969, 78.21.
- 16 Robinson 2006–7.
- 17 Ebnöther 1991.
- 18 Cunliffe 1971.
- 19 Gleason 1993.
- 20 Lancaster 2005, 58–9, fig. 60.
- 21 Patrich 2011, 214.
- 22 Pliny, *HN* 15.47.
- 23 Sen., *Con. Ex.* 5.5.
- 24 Sen., *Ep.* 122.7.
- 25 Thompson 1937.
- 26 Lauter 1968–9.
- 27 Mari and Sgalambro 2007, 86.
- 28 Ebnöther, 1991.
- 29 Jashemski 1979, 279–88.
- 30 Jashemski 1979, 249–50.
- 31 Jashemski 1979, 243–50.
- 32 Gasperetti and Crimaco 1993.
- 33 D. Carru, *Notes sur une petite nécropole rurale gallo-romaine (fin du Ier-début du IIIe siècle ap. J.-C.)*. Service de Recherche archéologique de Vaucluse. Unpublished report. Pers. comm. with D. Carru. See Volume 2: Tomb gardens in Gallia Narbonensis.
- 34 Barberan 1998.
- 35 See Gleason 1987–8.
- 36 White 1967 offers an extremely valuable treatment of this subject, correlating the archaeological evidence with the literary evidence, noting how soil conditions and climates promoted the

- development of different tools and techniques throughout the empire. It will be frequently quoted in this chapter.
- 37 Cou 1912, 210 and pls. 143–6.
 38 Jacobi 1897.
 39 White 1967, 43–7.
 40 Illustrated in *DarSag*, figs. 6117–18.
 41 White 1967, 46.
 42 Pliny, *HN* 18.24.1; Columella, *Rust.* 2.11.4, 7–8.
 43 Columella, *Rust.* 2.15, 2.10.33, 10.91.3; Pliny, *HN* 18.295.
 44 Pliny, *HN* 18.178; Columella, *Rust.* 2.17.4.
 45 For this quote and a fuller discussion, see White 1967, 47–52.
 46 Pliny, *HN* 18.178, 241.
 47 Cato, *Rust.* 10.3, 11.4.
 48 White 1967, 54; Varro, *Rust.* 5.136; Columella, *Rust.* 2.10.23.
 49 Pliny, *HN* 19.60.
 50 Maiuri 1933, vol. 1, 204, 461–5.
 51 Kolendo 1960.
 52 Cato, *Rust.* 13.1.1.
 53 Cato, *Rust.* 61.
 54 Varro, *Rust.* 1.20.4, 2.6.5.
 55 Cato, *Rust.* 135.2.
 56 White 1967, pls. 10a, 10b, and 11a.
 57 Verg., *G.* 1.168–72, 74.
 58 Columella, *Rust.* 2.2.26.
 59 White 1967, 123–45.
 60 Columella, *Rust.* 5.9.11.
 61 Mattingly 1996, 219–20.
 62 Mattingly 1996, 218.
 63 Pliny, *HN* 2.197.
 64 White 1970, 179.
 65 Columella, *Rust.* 4.9.1–11.4, 23.1–25.3.
 66 Columella, *Rust.* 5.11.1.
 67 Amouretti 1986, 41–6; Renfrew 1973, 132–4.
 68 Columella, *Rust.* 4.29.13–14.
 69 Columella, *Rust.* 4.29.16.
 70 White 1970, 497–8, n.77.
 71 See Jashemski 1992; Messineo 1984, 65–84; Macaulay-Lewis 2006.
 72 Macaulay-Lewis 2006, 210.
 73 Macaulay-Lewis 2006a, 159–70.
 74 Macaulay-Lewis 2006, 209.
 75 Macaulay 2007; Villedieu 2001.
 76 Jashemski and Salza Prina Ricotti 1992, 580–4.
 77 Klynne and Liljenstolpe 1996, 130–4; Klynne and Liljenstolpe 2000; Macaulay-Lewis 2006, 209.
 78 Messenio 1984, 69–77; Villedieu 2001, 94–100.
 79 Thompson 1937.
 80 Zachos 2003, 64–92.
 81 Gleason and Bar Nathan 2013, 317–66.
 82 Macaulay-Lewis 2006a, 159–70.
 83 Pers. comm. from Jean-Pierre Darmond to Amina-Aïcha Malek.
 84 Kenawi et al. 2012; Macaulay-Lewis 2006, 207–20.
 85 Barat and Morize 1999.
 86 Barat and Morize 2003; Barat and Morize 1999.
 87 Fiches and Veyrac 1996, 200–1; Monteil 1999, 130–5; Garmy and Monteil 2000, 74–90, 173–81.
 88 Barberan 1998.
 89 Detsicas 1981.
 90 Cato, *Rust.* 51.52, 133.
 91 Pliny, *HN* 17.97–8.
 92 Jashemski 1979, 293–5.
 93 Cato, *Rust.* 46–8.
 94 Columella, *Rust.* 5.9.6.
 95 See Volume 2: Italy, Pompeii, vii.11.i.
 96 Riad 1964; Kenawi et al. 2012.
 97 Pliny, *HN* 19.64.
 98 Columella, *Rust.* 11.3.52–3.
 99 Mart. 8.14–16.
 100 Mart. 8.68.5–6.
 101 Mart. 6.58.5–6.
 102 Mart. 4.22.5–6.
 103 Unpublished. Pers. comm. with Kathryn Gleason, who observed large broken panes of glass at the SAL deposito in Tivoli in 1998. Less well preserved are the large quantities of window glass fragments at the Promontory Palace at Caesarea Maritima, as yet unpublished: pers. comm. Kathryn Gleason, 1998.
 104 Pliny, *HN* 17.216–67, 19.176–83.
 105 Pliny, *HN* 17.216–17.
 106 Cato, *Rust.* 95.1.
 107 Pliny, *NH* 19.177.
 108 White 1967, 241.
 109 There is a good description of these mosaics in Latchi 2003, 130–3.
 110 Cato, *Rust.* 11.4.
 111 Columella, *Rust.* 112.18.2.
 112 Columella, *Rust.* 11.1.20.
 113 Details and photos were supplied by Orsolya Dálnoki.
 114 Varro, *Rust.* 1.55.1–3.
 115 Yizhar Hirschfeld discussed most of this section with Wilhelmina Jashemski in person during his year at Dumbarton Oaks in 1996/7. He was not able to publish all of these observations prior to his untimely death in 2006.
 116 Fischer et al. 2000.
 117 Netzer 2001.
 118 Yizar Hirschfeld, pers. comm., 1997.

CHAPTER 17

- 1 Palaeoethnobotany is well developed for the pre-historic periods of many areas, providing a context for Roman plant importation and distribution.
- 2 Langgut et al. 2013; Langgut et al. 2015.
- 3 Co-authors' note: For much of Wilhelmina Jashemski's career, there were few published studies of Roman plants retrieved systematically from any archaeological contexts of the Classical period, not just gardens. As she wrote this chapter, she

- enthusiastically received reports of new archaeobotanical findings and conference proceedings from around the Mediterranean and Europe, from which she developed lists for the manuscript. As the field grew, so did the lists, but few syntheses had yet been published from which to report on the archaeobotanists' conclusions, so at the time of her death, the manuscript had a number of unprocessed lists. Preliminary syntheses and interpretation have now emerged. We do not attempt the kind of integration of classical texts, art, and archaeological remains that characterizes her work on Pompeian plants – this awaits dissertations of the future. We have surveyed current scholarship in each province and have provided some details about provincial plant use from art and text sources to fill out the picture she had created for Pompeii and Italy. The large, abundantly illustrated catalog she prepared is provided in Volume 2, and can be consulted while reading this chapter. We are grateful to the botanists cited within this chapter, many of whom helped us to synthesize their articles, providing as yet unpublished perspectives on the data.
- 4 See also Carroll 2003, 96–113.
 - 5 A short history of plant identification in ancient texts is given by André 1985, ix–xi. He is the most convenient source to consult for the issue of Latin plant names and their scientific equivalent. For *viola* see Jashemski and Meyer 2002, 83.
 - 6 Only in the eighteenth century did Swedish botanist Carl Linnaeus devise a system of plant classification that was consistently assigned to each plant, using the Latin binomial name (one for the genus, one for the species) with which we are familiar today.
 - 7 Pliny, *HN*, *Preface* 13.
 - 8 Pliny, *HN* 25.9.
 - 9 For a recent discussion see Popa 2010, 46–9, and Touwaide 2007.
 - 10 An English translation has recently been published: Fitch 2013.
 - 11 Only a small part of Gargilius Martialis' work, *De hortis*, survives in a sixth-century fragment from Naples titled "De arboribus pomiferis." See Mazzini 1988.
 - 12 Comparing practices across the months are represented in each book of Palladius, *Opus agriculturae*.
 - 13 Mago is cited by Columella, *Rust.* 1.1.13. We can consult some of the later accounts – also from further Roman agricultural writers like the Quinctilii (second century AD) and Florentinus (third century AD) – that did not survive as a whole in the *Geoponika*, a Byzantine collection of agricultural knowledge of the tenth century.
 - 14 Varro, *Rust.* 1.1.7–10. Cf. also Columella, *Rust.* 1.1.7–11. For the Roman sources on agricultural matters before Columella, see Columella, *Rust.* 1.1.12–14.
 - 15 Quoted by Diog. Laert. 5.51–7. Capella 1954, 47–82 put together a list of plants that might have grown in Theophrastus' garden. As Hardy and Totelin 2016, 38, note: "It is probably best to see [... the garden] of Theophrastus as a philosophical garden, in which learned men enjoyed walking, debating and indeed observing plants."
 - 16 Löw 1881, and Löw and Löw 1924–34. Both are available as online resources.
 - 17 Zohary 1982; Hepper 1992; Musselman 2012.
 - 18 Shimoff 1995.
 - 19 Examples are mentioned throughout Jashemski 1979.
 - 20 E. Taylor, *Ostia Graffiti Project*, <http://ostian-antica.org/inter/graffiti>.
 - 21 Kent 1948; Rostovtzeff et al. 1936.
 - 22 Yadin and Naveh 1989.
 - 23 Ehmig 2001.
 - 24 For the *tituli picti* of Cologne see Ehmig 2007; Ehmig 2011.
 - 25 Tiller 1997.
 - 26 Taylor 2009.
 - 27 From the Zenon papyri, for example, we have knowledge about the plant supply for the gardens of the royal minister Apollonius in Ptolemaic Egypt (mid third century BC). A recent summary of the plants mentioned in the papyri can be found in Kenawi et al. 2012, 195–7.
 - 28 Jashemski et al. 2002. Jashemski 1993, Appendix ii, 313–404 includes many identifications of plants in art.
 - 29 Möller 1890; Caneva and Bohuny 2003.
 - 30 Cunliffe 1971, vol. 2, 82 and pl. xiii. The fragments include a trellis fence.
 - 31 Stroocka 1977, figs. 208–19.
 - 32 See, for example, Chapter 12 in this volume, where Amina-Aïcha Malek discusses the *smilax* and other plants. A survey of Roman mosaics shows that scholars regularly endeavor to identify the specific plants of a scene, although a synthetic work is not yet available.
 - 33 These *nymphaea* are cataloged in Volume 2.
 - 34 Presicce 2014, 169.
 - 35 *Res Gestae* 34; Ov., *Fast.* 4.953; Ov., *Met.* 1.561–2; Ov., *Tr.* 3.1.39–40; Cass. Dio 53.16.4.
 - 36 Caneva 2010.
 - 37 Stefano Tortorella in Wallace-Hadrill 2014, 58; Carroll 2003, 109, fig. 86.
 - 38 See, for example, the sarcophagi from Judaea, summarized by Crewe 2009. Representations in other forms of art in the area are explored in this article.
 - 39 Presicce 2013, 171.
 - 40 A full discussion is provided in Brown 1991. For a new guide, another legacy of Wilhelmina Jashemski and Dumbarton Oaks, see Malek 2013.
 - 41 Jashemski 1979, 331, fig. 529.
 - 42 Dickson 1994, 56.

- 43 Celant 2005.
- 44 For a discussion of the uses and limitations of pollen see Dimbleby and Grüger 2002, especially 199–203.
- 45 Grüger 2013, 376.
- 46 Dimbleby and Grüger 2002, 211.
- 47 Currie 2005, 82–3.
- 48 Langgut et al. 2013; Langgut et al 2015.
- 49 Piperno 1988, 1.
- 50 Giardini et al. 2006.
- 51 Giardini et al. 2006.
- 52 Philippa Ryan in Howe et al. Forthcoming.
- 53 Bedal et al. 2011, 315.
- 54 Grüger et al. 2002, 252–7.
- 55 Bedal et al. 2011, 639.
- 56 Pinto-Guillaume 2002. Pinto-Guillaume 2010.
- 57 Pinto-Guillaume Forthcoming.
- 58 Grüger et al. 2002, 257–62.
- 59 Schlumbaum et al. 2008, 234.
- 60 Ciaraldi 2007, 159.
- 61 Dyson 1990, 248–50; Rottoli 2005.
- 62 Jones and Sheldon 1985.
- 63 Knowledge about trees, among them the many fruit and ornamental trees of gardens in Italy during the early Empire, based upon literary, iconographic, and archaeobotanical sources, is discussed by Herchenbach, Forthcoming. Interesting reviews discussing archaeobotanical matters of Italy come from the academic groups of Rome, Modena, and Como. A review on Roman food plants in Emilia-Romagna was published by Bandini Mazzanti et al. 2000. A review on plants from Roman tombs in northern Italy comes from Castiglioni and Rottoli 2011.
- 64 Dimbleby and Grüger 2002, 182–3.
- 65 Ciarallo and Mariotti Lippi 1993.
- 66 Lippi 1998.
- 67 Carroll 2010; for archaeobotanical results from the Temple of Venus cf. Fiorentino and Marinò 2008; Robinson 2006–7.
- 68 Charcoal analysis was done by Andrea Starace for his “Tesi di Laurea” at the University of Lecce during the academic year 2007/8. He collaborated with the Università Ca’ Foscari Venezia (prof. A. Zaccaria Ruggiu) and the Universidad de Cádiz (prof. D. Bernal).
- 69 Pollen analysis was done by Paola Caprio in her “Tesi di Laurea” (“Analisi archeopalinologiche alle ville romane di Stabia (Villa Arianna e Villa San Marco)”) in Archeopalinologia at the Università degli Studi, Modena e Reggio Emilia during the academic year 2007/8.
- 70 Robinson 2002.
- 71 Robinson 2002; Ciaraldi 2000; Matteredne and Derreumaux 2008, respectively.
- 72 Ciaraldi 2007.
- 73 Allevato and Pasquale 2009.
- 74 Borgongino 2006; Ciarallo 2004.
- 75 Ramsay 2006.
- 76 Giardini et al. 2006.
- 77 Ramsay Forthcoming a.
- 78 Giardini et al. 2006. A wood fragment from inside an *olla perforata* identified as *Rosoideae* might have been from a rose growing in this planting pot (pp. 133–4). The identification of a singular pollen grain of jasmine (*Jasminum* sp.) – although already marked by the authors as “doubtful” – could refer to an import and cultivation of jasmine in Roman times (p. 140).
- 79 Celant 2005. Alessandra Celant was also responsible for the archaeobotanical identifications at the former airport of Centocelle. At the so-called “Villa della Piscina” she was able to identify seeds of Common Verbena (*Verbena officinalis*) in five of twenty-two *ollae perforatae* (Celant 2007).
- 80 Gleason and Miller 1994.
- 81 Williams 1977; van der Veen et al. 2008, 34; Bakels and Jacomet 2003, 555.
- 82 Pliny, *HN* 13.26.
- 83 Leonor Peña-Chocarro kindly aided our understanding of Roman archaeobotany in Spain.
- 84 Leonor Peña-Chocarro, pers. comm.
- 85 Peña-Chocarro and Zapata 2005.
- 86 Alonso Martinez 2005. Great changes with the arrival of the Romans are also reported from other areas of Spain, like the northwest, where López-Merino et al. 2010, 920, see “an intensification of the production [of crop cultivation] by increasing the surface cultivated.”
- 87 Cunliffe 1981, 97–9.
- 88 Greig 1971.
- 89 Reid 1901.
- 90 Dickson 1994.
- 91 Dickson 1994, 52–3, Table 1.
- 92 van der Veen et al. 2007; van der Veen et al. 2008; Livarda 2011.
- 93 Bakels 2009, 157–95.
- 94 These sites, in particular, came to Wilhelmina Jashemski’s attention, but there are more to consider. For a first introduction to archaeobotany on the Roman era in France see Wiethold 2003 and Matteredne 2001.
- 95 Bouchette and Matteredne 2000.
- 96 A review of the plants of the Rhineland in Roman times can be found in Knörzer and Gerlach 1999. The results of Knörzer’s lifetime work are published in Knörzer 2007. The laboratory of archaeobotany at the University of Cologne is now continuing the research of Karl-Heinz Knörzer. A recent synthesis on plant foods of Roman Cologne, also on the basis of Knörzer’s work, is provided by Meurers-Balke and Kaszab-Olschewski 2010.
- 97 Bakels and Jacomet 2003.
- 98 Among the exceptions is a comparative study questioning the changes of agriculture from Iron

- Age to Roman times by Kreuz 2004. For a survey of Roman plant remains from the Upper Rhine see Stika 1996.
- 99 A recent overview of the food plants (based on pollen and macro-remain finds) from Roman Switzerland and Alsace is given by Vandorpe and Wick 2015. See also the important summaries in Jacomet and Schibler 2002 and Jacomet and Brombacher 2009.
- 100 Thüry 2008.
- 101 See Willcox 1997, 273–8 (spices). A recent list of the condiments available in Roman Britain is found in van der Veen et al. 2008, 13, table 1 (black pepper represents an import). A list of “Roman” herbs identified by Knörzer in the Lower Rhine region is provided by Meurers-Balke and Tegtmeier 2007, 440–1. A discussion of the herbs used in the Roman kitchen of the colony of Cologne (including pollen finds) can be found in Meurers-Balke and Kaszab-Olschewski 2010, 126–39.
- 102 For box remains from Roman Britain: Dickson 1994, 56. Knörzer 2007, 239 reports evidence of box leaves from the Roman colonies of Cologne and Xanten. See also Meurers-Balke and Herchenbach 2015.
- 103 Caneva and Bohuny 2003, 151 identify a spruce among the painted flora at Prima Porta. Evidence for a cultivation of the spruce as a garden tree comes from the Roman Rhineland: Meurers-Balke and Herchenbach 2015.
- 104 Pliny, *HN* 19.90.
- 105 Meurers-Balke and Kaszab-Olschewski 2010, 74–5.
- 106 Zohary et al. 2012, 161.
- 107 Gyulai 2010, 157 (Roman period: 152–69).
- 108 Mégaldoudi 2006; Livarda 2014.
- 109 Mégaldoudi 2006, 79; Mégaldoudi 2005 summarizes findings of burnt funeral offerings and includes reference to the findings of ritual offerings from the whole empire (for the plant offerings from the necropolis of Limenas, Thasos, of the fourth century see Mégaldoudi et al. 2007).
- 110 See Gluščević et al. 2006.
- 111 Information kindly provided by Ksenija Borojevic. Borojevic 1987 and Medović 2008.
- 112 Tjaša Tolar, pers. comm. November 29, 2012.
- 113 Pliny, *HN* 12.6.
- 114 See Macaulay-Lewis 2008, 217, who notes that plants in “first century BC Rome ... became a part of the visual and symbolic language of victory.” Elizabeth Pollard (Pollard 2009) discusses the “botanical imperialism in first-century C.E. Rome,” and suggests that the gardens of the Templum Pacis were meant to be imperial botanical gardens. For another recent discussion of the “botanizing rulers,” the relationship of Hellenistic and Roman rulers and “their” plants, see Totelin 2012.
- 115 Gleason 1994a.
- 116 Nesbitt 1996.
- 117 Wilson Forthcoming.
- 118 Calder and Cormack 1962, 448; Roueché and Reynolds 1989, 70 proposed that the grove was later embellished by the fountain at the agora gate, where inscriptions (*Hell.* 4.131–2) honor the conversion of the gate into a fountain, alluding to the Nymphs of the “place of the palms.”
- 119 T. Van Thuyne, “Archaeobotanical Research in Sagalassos, SW-Turkey.” www.kuleuven.be/geography/frg/staff/38025/38025.php?print=1.
- 120 Nesbitt 1993.
- 121 M. Nesbitt, unpublished excavation report, 1987, Sardis Expedition archives. Greenwalt 1983 (D. G. Sullivan, “Environmental Studies,” 157–63).
- 122 Young 1981; McGovern 2010; Nesbitt and Miller 2010.
- 123 Clarke 2002; Deckers 2010; Willcox 1992; Willcox 2003.
- 124 Pliny, *HN* 15.47–8.
- 125 Rottoli and Castiglioni 2011, 503: “Cremation cemeteries confirm this [recent introduction] date and suggest that the species immediately became widespread and were also cultivated in northern Italy.”
- 126 Archaeobotanical proof of the introduction of the sebesten fruit is still missing for Italy, but we do have reports of the identification of waterlogged fruit stones of *Cordia myxa* from Gallia Narbonensis: Bouby et al. 2011.
- 127 Pliny, *HN* 13.51, 15.43.
- 128 Joseph., *BJ* 3.10.8 (516–17).
- 129 Gleason and Miller 1994, 25–38.
- 130 Langgut et al., 2015.
- 131 Ramsay 2008; Ramsay 2010; Ramsay Forthcoming.
- 132 Kislev 1992; Sallon et al. 2008.
- 133 Elaine Solowey, pers. comm., 2012.
- 134 Erickson-Gini and Israel 2013.
- 135 For possible evidence of balsam oil, see Hirschfeld 1989, and for a summary of current knowledge of balsam see Hirschfeld 2007.
- 136 Bedal et al. 2011, 167–70 (archaeobotanical report by J. Ramsay).
- 137 Bikai et al. 2007.
- 138 Cappers 2006, 9–20; van der Veen 2011.
- 139 See Bagnall, Volume 2: “Aegyptus.”
- 140 Germer 1987.
- 141 Cappers and Hamdy 2007.
- 142 Hamdy 2007, 124.
- 143 van Zeist et al. 2001.
- 144 Mattingly and Hitchener 1995, 198.

CHAPTER 18

- 1 For a discussion of her pioneering methodology see Malek 2014, 54. See also Gleason 2014a for Jashemski's excavations at Oplontis, undertaken at the peak of her career.
- 2 Jashemski planned to expand her Pompeii-based assessment to one that examined the wider empire, but she was not able to do so. We encourage readers to consult, in particular, Jashemski 1979 and Jashemski 2008 and hope that scholars of ancient history, archaeology, or anthropology will be encouraged to complete her ambitious goal.
- 3 Malek Forthcoming; Janon 1973, 242.
- 4 This is a preliminary investigation in need of further study using modern geophysical techniques.
- 5 Cf. Xen., *Oec.* 4.2. Repeated in Cic., *Sen.* 59; Diod. 14.80.2; Xen., *An.* 1.2.7, 2.4.14. Grimal 1984, 78–86.
- 6 On the Achaemenid terms see Tuplin 1996, esp. 80–92. For paradise gardens in Judaism and Christianity, see Luttikhuisen 1998. An extensive treatment of the topic has recently been provided in Morvillez 2014a.
- 7 See Bagnall, "Aegyptus: Introduction," in Volume 2.
- 8 Buckler and Robinson 1932, 3–7.
- 9 Joseph., *AJ* 12.4.1; for a reconstruction see E. Netzer, 2001, 136–7.
- 10 Joseph., *BJ* 5.176–81; see also Strabo 16.2.31; Gleason and Bar Nathan 2015–64. Taylor 2014, 147.
- 11 Purcell 1996, 141. Landgren 2004, 168–77 (*viridarium*), *viridia* (152–67) notes that *viridaria* acquired its current spelling in the medieval period, while in antiquity it was spelled *viridiaria*. We encourage, as does Purcell, a return to the ancient spelling, with its emphasis on *viridia*.
- 12 Gleason 2014, 77.
- 13 Landgren 2004, 154–77.
- 14 *CIL* 6.2225; *CIL* 6.2977; *ÂÉpigr.* 1948, 111; Malek 2016. The inscription found *in situ* lists the embellishments made to this cultural complex in AD 213 by the city of Timgad. It informs us that between October and December 9, 213 a series of works was completed: the closing of the *fons* (the water source, transformed into basin); the placing of a bronze railing (*Cancellis aereis conclusum*); the layout of the porticoes of the *viridarium* that were decorated with paintings, gates and a pronaos facing the porticoes; finally, the paving of the *opus plateae*, which stretches from the Southern Baths to the entrance of the sanctuary.
- 15 Sen., *Controv.* 10.9. See also Andreea 1990.
- 16 Cic., *Att.* 1.8.2; Suet., *Aug.* 72; Tert., *Apol.* 38.
- 17 *CIL* 8.26606 (see also *CIL* 8.26608).
- 18 For example, Varro, *Rust.* 1.2.6; Columella, *Rust.* 5.10; Cic., *Sen.* 15.54; Sen., *Ep.* 122.8; Pliny, *HN* 15.19.
- 19 Knörzer and Meurers-Balke 1990.
- 20 For example, Columella, *Rust.* 4.10.
- 21 Gleason, "Porticus of Livia," Volume 2.
- 22 Jashemski 1979, 147–9. See in this volume Figures 8.1A and 8.1B.
- 23 See Landgren 2004, 152–3 for a discussion of *nemus* and *silva*.
- 24 Tacitus, *Ann.* 14.15.
- 25 Pliny, *HN* 31.6.
- 26 Varro, *Rust.* 3.5.12.
- 27 Hor., *Epod.* 1.10.22.
- 28 Vitruvius, *De Arch.* 5.11.4.
- 29 Landgren 2004, 154.
- 30 Howe et al. Forthcoming.
- 31 Gleason 2013a.
- 32 Malek 2014, 15.
- 33 Jashemski 1992, 29–30.
- 34 Part of the response lies in engaging the discipline of landscape architecture to provide a vocabulary that is consistent between archaeologists and garden-makers, as well as the discussion of the process of building gardens and other designed landscapes. Gleason 2013a.
- 35 Lasserre (Paysagegestion, Lausanne/Pont 12 architectes Lausanne) was commissioned by the state of Vaud and the Museum of Avenches to locate and establish the site museum.

GLOSSARY

Elizabeth Macaulay-Lewis

aedicula – a niche or small shrine for the image of a god found in gardens and in paintings; also an architectural decoration. Referred to as an *aedicula Lararium* if dedicated to the household gods.

agrimensor – a Roman land surveyor.

alsos – the term often used by ancient Greek authors to describe sacred groves.

ambulatio – a promenade for leisured walking.

amoenitas – the ancient idea that the life of cultured leisure required a special luxurious landscape setting.

ars topiaria – the Roman term for decorative, ornamental gardening (Cic., *Q. Fr.* 3.1.4.).

atrium – the main room of a Roman house, which was also partially open to the sky.

bipedalis – the standard Roman brick, 2 Roman feet on each side.

broderie – in later French classical gardening, a term for creating, through intensive pruning, the effect of an embroidery, tapestry, or fabric pattern.

cancelli – a lattice fence or balustrade that enclosed a garden, often depicted in garden paintings. See **parapet**.

castellum – a system for storing and distributing water.

caupona – an establishment that offered food, drink, and sometimes lodging to the public, often with a garden.

cella vinaria – a store room for wine.

cocciopesto (or opus signinum) – a building mixture of lime, pozzolana, and crushed brick or pottery, used for waterproofing in water channels, basins, and pools.

colonnade – the archaeological term for a covered, architectural walkway with columns.

crater – the archaeological term for a vase, made of luxurious materials such as alabaster or marble, often found in gardens or depicted in garden paintings.

cryptoporticus – the archaeological term for an underground or partly subterranean vaulted corridor.

cubiculum – the archaeological term for a room identified as a bedroom.

curia – a meeting place for the Senate or local town council.

dado – the archaeological term for the decorated and painted lower part of a wall.

diaeta – an archaeological term for a day room. The term is also used to describe summer houses and viewing pavilions.

domus – a residence or house for a single family and its household.

elevation – 1) in archaeological excavation and survey: the height, usually above sea level, of a point on the land; 2) in measured drawing: a form of orthographic projection in which a

- three-dimensional view is rendered in two dimensions without the use of perspective.
- emblema** – a mosaic panel, pre-composed in workshops, and transported to the villas or houses where they were installed. They were often copies of paintings.
- exedra** – an architectural recess, either semicircular or regular in shape.
- euripus** – the archaeological term for a water channel. It denotes a wide range of water channels, including the functional, the ornamental, and the fusion of the two.
- fistula** – the archaeological term for a lead water pipe.
- Forma Urbis Romae** – the Severan marble plan of Rome (1:240 scale). It dates to ca. AD 203–11 and was located in the Templum Pacis.
- forum** – the marketplace or central square of a Roman town where many of the important civic functions occurred. It is an inaugurated space, often rectangular (especially when planned) and bordered by colonnades. The buildings of a *forum* often included a *basilica*, *curia*, *comitium*, and *macellum* as well as important temples, such as a *capitolium*.
- gestatio** – the ancient term for a drive, often situated in the gardens of a villa.
- gnomon** – the pin, often bronze, of sundials, which casts the hour line.
- gymnasium** – in the Greek world, a complex where men received their educational and athletic training; they were the basis for Roman baths and always included a **palaestra**. Gymnasium-inspired spaces were often included in Roman villas.
- herm** – a marble pillar decorated in carved relief topped with a bust, found in gardens as a decoration.
- hectare** – a modern unit of measurement, equal to 10,000 square meters or 2.471 acres.
- hippodrome garden** – a term, originating with Pliny the Younger (5.6.14–16), used to describe a garden with the shape of a stadium or hippodrome.
- horreum** – a storehouse or magazine.
- horti** – a type of ancient suburban estate located on the division between town and country along the edge of the city of Rome.
- hortus** – an enclosure for the cultivation of plants; the general Latin word for garden.
- hortus pensilis** – plantings on terraces giving the effect of a hanging garden.
- hypocaust** – a raised floor on small columns, which permitted that circulation of heated air underneath, often used in baths.
- insula** – a multistory apartment building; also a term used by archaeologists for a city block. Regions of a city were subdivided into *insulae*, as at Pompeii.
- kepos** – the Greek word for garden. It is used to describe gardens in private, temple, house, park, and farm contexts.
- kepotaphion** – a garden tomb.
- lacus** – a small pool, basin, or watering hole, sometimes monumentalized.
- lararium** – the archaeological term for a shrine to the *lares* (household gods), not used in ancient literature until the *Historia Augusta*.
- lucus** – originally the sacred, open space in a grove, but it came to represent the whole, sacred grove in antiquity and in modern scholarship.
- mentor** – a skilled measurer, i.e. a surveyor, often of military camps.
- metae** – the goals of a circus.
- natatio** – a swimming pool.
- nemus** – a sacred wood or grove, describing natural groves which had religious significance. In the late Republic, *nemus* came to describe constructed sacred groves.
- nymphaeum** – the archaeological term to describe a monumental, decorative fountain.
- oecus** – a living or dining room, probably inspired by the living room in Greek domestic architecture.
- olla perforata** – also known as *olla pertusa* or *vasa factilis* – a purpose-made, utilitarian planting pot, used for aerial layering, planting, and the transportation of plants.
- opus reticulatum** – a type of concrete wall construction, where the points of pyramid-shaped stones were placed in the concrete and the base formed the outer facing, forming a diagonal, net-like pattern. The edges, corners, and door/window frames were made of bricks or square blocks.
- oscillum** – a decorative marble disk which hung between peristyle columns. They were often decorated on both sides with complementary subjects.
- otium** – the Roman cultivated leisure.
- palaestra** – the ancient and modern term for a space for study and gymnastic exercises with promenades.

paradeisos – the Greek translation of the Persian word for garden, *paradeiza*, a vast royal estate with extensive gardens and palaces, often containing hunting grounds. The term became used widely in the Hellenistic era and in Roman Egypt to describe a wide range of gardens.

parapet – a low wall or railing to protect the edge of a platform, roof, or bridge.

pelta – semicircular, decorative, marble shield, which hung between peristyle columns.

pergola – or trellis, a wooden or metal construction on which plants, especially vines, grow.

peristyle – a series of colonnades enclosing a central space, which by extension came to refer to the colonnade and the enclosed space. It often contained a garden.

piscina – pool, specially outfitted for raising fish.

pluteus – a low wall built between the columns of a peristyle to limit access into a garden.

pomarium – a fruit garden or orchard.

pomerium – the sacred boundary of a city. Inside of this boundary, certain activities, such as burial, were not permitted.

porticus – often translated into English as porch. A *porticus* is a colonnaded structure, similar to a stoa, with one or more aisles. In the context of Roman gardens, a *quadriporticus* or *porticus triplex* often includes the garden or public park in its interior courtyard.

prospectus – a prospect or view. The Romans employed this concept when designing spaces.

Rhodian peristyle – archaeological term for a peristyle where the roofs of three of the sides of the porticoes are of the same height and the roof of the fourth portico was higher.

sacellum – a shrine, either a niche or small hut, to house the statue of the god.

scaena – stage building at the end of a theater.

scaenae frons – the façade of the *scaena*. It was richly decorated with columns, sculpture, and *exedrae*.

scaenographia – perspective. *Scaenographia* was one of the three fundamental principles of Roman landscape and architectural design.

spina – the center wall or “spine” of a circus.

stadium – the long space with semicircular ends in which Romans raced chariots. Gardens designed in this shape are referred to as stadium or hippodrome gardens.

stibadium – a semicircular seat or couch, often found in the garden.

stylobate – the three-stepped platform on which a Greek temple’s cella and colonnade stand.

tablinum – the large room at the rear of the *atrium* in a *domus*.

templum – a consecrated precinct demarcated by sacred boundaries, often dedicated to a particular deity.

templum curia – a temple in which the Senate could meet.

tessera – a small piece, generally square or rectangular (often of glass, marble, tile, or stone), used in a mosaic.

thermopolium – an archaeological term used to describe a bar or wine shop.

tondo – a circular, often decorative marble roundel, which hung in intercolumniations of porticoes.

topiarius – a designer who specialized in ornamental gardens (*ars topiaria*).

triclinium – a three-sided couch, used for reclining and eating. *Triclinia* are often found in ancient gardens under a pergola or trellis. *Triclinium* is also commonly used to describe a Roman dining room.

utilitas – the Roman idea of usefulness.

villa maritima – a luxurious, coastal residence overlooking the sea. They often contained gardens and *piscinae* and were laid out either around a peristyle or along a *porticus*.

villa rustica – an active farm with a large residence, typically owned by members of the elite. It is described as having a *pars rustica* (the functioning farm) and a *pars urbana* (the residence). Often an enclosed *hortus* was attached to the residence, around which were located productive plots or fields.

villa suburbana – an suburban estate located near a city, normally within a day or two’s journey.

viridia – the Roman word for specimen plants.

viridiarium – a place for the collection and display of *viridia* (specimen plants).

winged corridor house or villa – an archaeological term used to describe a residence that is essentially a corridor with attached rooms projecting outwards. At the ends (or at a single end), a series of rooms, or wings, were placed at a 90-degree angle.

xystus – a portico, or a walk planted with trees, for recreation, conversation, or philosophic discussion.

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